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Southwestern Willow Flycatcher Surveys at 12 Sites
Along the Middle Rio Grande, New Mexico

**Southwestern Willow Flycatcher Surveys
At 12 Sites Along the Middle Rio Grande,
New Mexico**

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INTRODUCTION

The endangered Southwestern Willow Flycatcher (*Empidonax traillii extimus*) is a Neotropical migrant, breeding in wet habitats in southwestern United States (e.g., southern California, Arizona, and New Mexico) and wintering in southern Mexico to northern South America (McKernan 1997, Finch 1999, Sedgwick 2000). Along with many other riparian obligate bird species, its breeding populations have been threatened by the direct and indirect effects of intense human activity that occurs around water (McKernan 1997, Finch 1999). Loss of riparian habitat occurs due to water management activities, recreational activities, urban development, and agricultural development (Finch 1999). Additionally, native riparian habitat have been degraded by exotic species invasions. For example, Southwestern Willow Flycatchers that nest in Russian olive (*Elaeagnus angustifolia*) have been known to experience relatively low nesting success compared to other nesting substrata (Finch 1999), while saltcedar (*Tamarix ramosissima*) increases risk of catastrophic fires in riparian areas (Marshall and Stoleson 2000). Livestock grazing can also have an especially detrimental impact on riparian habitat through degradation of vegetative communities and soil properties (Finch 1999, Marshall and Stoleson 2000). Direct threats to breeding and survival of the Southwestern Willow Flycatcher include nest parasitism by Brown-headed Cowbirds (*Molothrus ater*), predation, disease, and environmental toxins.

Published data from 1993-1996 put the total breeding population of the Southwestern Willow Flycatcher at around 550 territories (Marshall 2000), with 75 percent of all breeding sites having 3 or less territories (Sedgwick 2000, Marshall 2000). Forty percent of the territories delineated during this period were from New Mexico. Given the large percentage of birds found in New Mexico, conservation and restoration of New Mexican riparian ecosystems is particularly integral to insuring the future health of the Southwestern Willow Flycatcher. During the 2001 and 2000 breeding season, the USDA Forest Service Rocky Mountain Research Station (RMRS) conducted standardized US Fish and Wildlife Service (USFWS) surveys to ascertain the breeding status of the Southwestern Willow Flycatcher in riparian areas designated for a fuels reduction project. The primary goals of the fuels reduction project were to reduce risk of catastrophic fires in native cottonwood gallery forest ("Bosque"), preserve the native Bosque, control the spread of exotic plant species, and provide habitat for native wildlife through the experimental manipulation of fuel loads. Results of the 2000 data are briefly summarized in this report, while the 2001 data are described in detail, with interpretation of the present and future status of Southwestern Willow Flycatchers at the sites.

METHODS

Study Sites

During 15 May – 17 July 2000, RMRS conducted three standardized USFWS Southwestern Willow Flycatcher surveys on 12 fuels reduction sites along the Middle Rio Grande in New Mexico: North 1-4, Middle 1-4, and South 1-4 (Figure 1). In 2001, RMRS conducted five Southwestern Willow Flycatcher surveys from 15 May – 17 July at the 12 fuels reduction sites surveyed in 2000, with additional surveys at four newly established fuels reduction sites: Cochiti 1-4. For results of surveys conducted on these sites, contact the Pueblo of Cochiti*. In addition, four recently burned sites (Middle 5-6, South 5-6) were also surveyed for Southwestern Willow

* Please Contact: Joe Suina or Donald Suina, Pueblo of Cochiti (505) 465-0121

Flycatchers. Middle 5-6 burned in March of 2000, and South 5-6 burned in the late spring of 1996.

The 16 primary sites were chosen for the Rio Grande Bosque Fuels Reduction Project because they were dominated by cottonwood gallery forest, they had substantial amounts of exotic species, and they had high levels of dead and downed wood. The overstory of each of the sites largely consisted of mature cottonwood (*Populus wislizenii*), but Gooding willow (*Salix gooddingi*), mulberry (*Morus microphylla*), exotic Siberian elm (*Ulmus pumila*), boxelder (*Acer negundo*), and exotic tree of heaven (*Ailanthys altissima*) were also encountered on many of the sites. The predominant native understory plant species found on the sites were coyote willow (*Salix exigua*), seep willow (*Baccharis glutinosa*), New Mexico olive (*Forestiera neomexicana*), oneseed juniper (*Juniperus monosperma*), and screwbean mesquite (*Prosopis pubescens*). Common exotic understory species included saltcedar (*Tamarix ramosissima*) and Russian olive (*Elaeagnus angustifolia*).

Training

Prior to conducting surveys, all field technicians completed a US Fish and Wildlife Service training course on Southwestern Willow Flycatcher identification and survey methods on 15-16 May 2001 in Albuquerque, NM.

Surveys

Standardized US Fish and Wildlife Service surveys (Appendix 1 & 2) were conducted under Dr. Finch's (RMRS, Project Leader) USFWS endangered species master permit. A table from Sogge et al. (1997:22) was used to interpret survey results (Appendix 3). Tape playback techniques were used to survey each site for flycatchers. In 2000, one survey was conducted during period 1 (15-31 May 2000), period 2 (1-21 June 2000) and period 3 (22 June – 17 July 2000). In 2001, one survey was conducted during period 1 (15-31 May 2001) and period 2 (1 – 21 June 2001) on the 16 primary sites to detect both migrant Willow Flycatchers and breeding Southwestern Willow Flycatchers. Due to a new request made in 2001 by the USFWS concerning project related surveys, three surveys were conducted during period 3 (22 June – 17 July 2001). The resident period of the Southwestern Willow Flycatchers is between 10 June – 21 July 2001 (Sogge et al. 1997), so Willow Flycatchers detected during the period 3 were considered part of the breeding population of the endangered subspecies. Since fuels reduction experiments will not be conducted on the four burned sites, RMRS was not required to complete Southwestern Willow Flycatcher surveys on these sites. However, RMRS completed one survey during period 2 at each of the four burned sites for informational comparative purposes.

Surveys at each site took place at least five days apart and typically began one-half hour before sunrise. The first survey covered each site entirely, while succeeding surveys took place only in areas with potentially suitable habitat as explained by Finch (1999). Potentially suitable habitat surveyed typically occurred within 30-40m of the river's edge, adjacent to conveyance channels, and around marshy areas. During surveys, field technicians stopped every 20-30m and listened for 1-3 minutes for Willow Flycatcher vocalizations. If no vocalizations were heard, the surveyors played a tape of Willow Flycatcher vocalizations (e.g., "fitz-bew") in an attempt to elicit a response from any flycatcher individuals that might be present. Universal Transverse Mircator (UTM) coordinates of all flycatcher detections were recorded using Geographic Positioning System (GPS) units.

Incidental Sightings

In addition to the team of biologists conducting Southwestern Willow Flycatcher surveys, several other teams of RMRS scientists collected data on breeding birds, herpetofauna populations, and bat populations on the study sites. These RMRS biologists (especially those conducting point count surveys and breeding bird surveys on a weekly basis) provided incidental reports of Willow Flycatchers.

Nest Searching

Once a Willow Flycatcher was detected, the location was revisited within a few days later in an attempt to relocate the bird and observe breeding behavior. After a period of observation, the surveyors systematically searched for a nest in the area used by the flycatcher. The date, time, and duration of these nest searches were recorded on the survey forms and are included in the total survey effort hours.

RESULTS and DISCUSSION

Summary

During an average of 16.23 hours per fuels reduction site, Willow Flycatchers were detected during surveys in periods 1 and 2 on four of the twelve sites (North 1, and Middle 1-3). No Willow Flycatchers were detected during surveys in period 3, which is considered the resident period for breeding Southwestern Willow Flycatchers. On three of the twelve sites, a total of five Willow Flycatchers were sighted incidentally during periods 1 and 2. No detections occurred in any of the four burned sites, but two flycatchers were incidentally sighted on South 5 during period 1. No territories or nests were found during the 10.17 hours spent nest searching.

Brown-headed Cowbirds (*Molothrus ater*) were present at every site during every survey except for the first survey at North 1. The abundance of cowbirds varied between surveys and sites. On several occasions, cowbirds were observed responding positively (e.g., flying in) to the tape.

Recent signs of livestock (cattle or horses) on many of the sites were highly variable between surveys, but some sites showed consistent signs of livestock (or lack thereof). Recent signs of livestock were found during every survey at Middle 4 and South 1. Middle 2 and South 3-4 were void of signs of livestock during every survey. Recent signs of livestock were mostly from cattle, but some sites had recent signs of horses, such as North 1 and Middle 1.

North 1

2000 Results – No Willow Flycatchers were detected during the three surveys conducted and no incidental sightings were reported (Appendix 1).

2001 Results – One Willow Flycatcher was detected during period 1 and two were detected during period 2, in a total of 18.37 survey hours (Table 1). One of the two flycatchers detected during period 2 was most likely the same individual detected in period 1, because both sightings were in a single location. No incidental sightings of flycatchers were reported throughout the survey season. Nest searching took place once during period 1 and twice during period 2 at the two locations where flycatchers were detected. No nesting behavior was observed and no nests were found during 4.33 hours of nest searching. Brown-headed Cowbirds were present during every survey but the first survey. Recent signs of livestock were present during the second, third and fourth survey.

2001 Survey Area – The last four surveys were primarily conducted along the edge of the Rio Grande from a trail that follows the river. The trail allowed for easy access and there was fairly consistent use of this area by horseback riders and walkers. Unlike vegetation further away from the river, the cottonwood canopy was either patchy or absent along the river's edge. Coyote willow (1-2m tall) dominated the southeastern portion of the site. A thin cottonwood canopy and open understory characterized the northeastern portion. Russian olive and boxelder occurred in intermittent small clumps of 3-6 trees along the edge of the river, and all three Willow Flycatcher detections occurred in these clumps.

Status – Willow Flycatchers used this site for migration during the 2001 survey season and they may do so in the future. However, there was no evidence to suggest that Southwestern Willow Flycatchers used the site for breeding in 2000 or 2001, as flycatchers were not present during the resident periods in 2000 and 2001 and nesting behavior was not observed (Appendix 3). Future breeding by Southwestern Willow Flycatchers on this site is not probable because of the lack of breeding flycatchers in 2000 and 2001, and because of a lack of potentially suitable habitat.

North 2

2000 Results – No Willow Flycatchers were detected during the three surveys conducted, and no incidental Willow Flycatchers were reported (Appendix 1).

2001 Results – No Willow Flycatchers were detected during all five surveys, in a total of 18.75 survey hours (Table 2). There were no incidental sightings of flycatchers were reported throughout the survey season. Brown-headed Cowbirds were present during every survey and recent signs of livestock were present only during the first survey.

2001 Survey Area – The last four surveys were conducted primarily along the edge of the Rio Grande for the length of the site. The southern portion of site had no significant overstory along the river and was dominated by coyote willow and Russian olive. The northern end of the site was moister and had a mature cottonwood canopy with a saltcedar and Russian olive understory.

Status – Since Willow Flycatchers were not detected in 2000 and 2001, and because of the lack of potentially suitable habitat, it is unlikely that Willow Flycatchers will use this site for stopover during migration in the future.

North 3

2000 Results – No Willow Flycatchers were detected during the three surveys conducted and no incidental Willow Flycatchers were reported (Appendix 1).

2001 Results – No Willow Flycatchers were detected during all five surveys, in a total of 16.87 survey hours (Table 3). In addition, there were no incidental sightings of flycatchers reported throughout the survey season. Brown-headed Cowbirds were present during every survey, while recent signs of livestock were present only during the second survey.

2001 Survey Area – The last four surveys were conducted primarily along the edge of the Rio Grande for the length of the site. The canopy of mature cottonwood, Gooding willow, mulberry, and Siberian elm covered the site continuously up to the river's edge. The understory consisted of saltcedar, Russian olive, and large amounts of dead wood.

Status – Willow Flycatchers were not detected in 2000 and 2001, and it is unlikely that Willow Flycatcher will use this site for stopover during migration in the future. Probability of future use of this site by breeding Southwestern Willow Flycatchers is even more unlikely because very little potentially suitable habitat exists on the site.

North 4

2000 Results – No Willow Flycatchers were detected during the three surveys conducted and no incidental Willow Flycatchers were reported (Appendix 1).

2001 Results – No Willow Flycatchers were detected during all five surveys, in a total of 15.18 survey hours (Table 4). In addition, there were no incidental sightings of flycatchers reported throughout the survey season. Brown-headed Cowbirds were present during every survey and recent signs of livestock were present during the first and second surveys.

2001 Survey Area – The last four surveys were conducted primarily along the edge of the Rio Grande for the length of the site. A canopy of mature cottonwoods with a dense tangle of Virginia creeper (*Parthenocissus quinquefolia*) and dead wood underneath characterized the fairly dry vegetation on the northern end. The middle portion of the site was more open and less dry with young cottonwoods, coyote willow, and grasses dominating. The southern end was dry and dominated by thick stands of mulberry and Russian olive.

Status – Willow Flycatchers were not detected in 2000 and 2001, it is unlikely that Willow Flycatcher will use this site for stopover during migration in the future. Probability of future use of this site by breeding Southwestern Willow Flycatchers is even more unlikely because very little potentially suitable habitat exists on this site.

Middle 1

2000 Results – No Willow Flycatchers were detected during the three surveys conducted and no incidental Willow Flycatchers were reported (Appendix 1).

2001 Results – One Willow Flycatcher was detected during period 2, in a total of 15.50 survey hours (Table 5). In addition, there was an incidental sighting of a flycatcher reported during period 1. No nesting behavior was observed and no nests were found during 0.67 hours of nest searching. Brown-headed Cowbirds were present during every survey. Recent signs of livestock (mostly horses) were present during the first, third, and fifth surveys. Trails on this site allowed for easy access by horseback riders and All-terrain vehicles (ATVs), which most likely increased anthropogenic disturbance to the site.

2001 Survey Area – The last four surveys were conducted primarily along the edge of the Rio Grande for the length of the site. Vegetation along the river at the southern end of the site consisted of a strip (5-10m wide, 6-8m tall) of dense Russian olive, saltcedar, and grasses. The northern end of the site was drier than the southern end and had stands of young cottonwoods and saltcedar. The only Willow Flycatcher detected in 2001 was found at the northern end of the site near the river, in dry vegetation with small Russian olive trees.

Status – Willow Flycatchers used this site for stopover during migration in the 2001 survey season and they may do so in the future. However, there was no evidence to suggest that breeding Southwestern Willow Flycatchers used the site in 2000 and 2001 (Appendix 3). Probability of future breeding by Southwestern Willow Flycatchers on this site is unlikely because of the lack of breeding flycatchers in 2000 and 2001.

Middle 2

2000 Results – No Willow Flycatchers were detected during the three surveys conducted and no incidental Willow Flycatchers were reported (Appendix 1).

2001 Results – Six willow flycatchers were detected during the first survey, but no detections occurred during periods 2 or 3, in a total of 17.16 survey hours (Table 6). There were no incidental sightings of flycatchers reported. Nest searching was conducted once in period 1 and

once in period 2, for a total of 4.17 hours. No nesting behavior was observed and no nests were found. Brown-headed Cowbirds were present during every survey, while recent signs of livestock were absent during every survey.

2001 Survey Area – The last four surveys were conducted primarily between the edge of the Rio Grande and the Bosque for the length of the site. The relatively moist vegetation along the river was characterized by large monospecific stands of coyote willow (1.5-3.5m tall) and some smaller stands of young saltcedar (1-3m tall). Russian olive and boxelder trees were more prevalent from south to north on the site. All six of the flycatchers detected in 2001 were found in Russian olive and boxelder trees surrounded by coyote willow stands.

Status – Willow Flycatchers used this site for stopover during migration in the 2001 survey season and they may do so in the future. However, there was no evidence to suggest that Southwestern Willow Flycatchers used the site for breeding in 2000 and 2001 (Appendix 3). Despite the lack of detections during the resident periods in 2000 and 2001, there is a limited possibility of future use of this site by breeding Southwestern Willow Flycatchers.

Middle 3

2000 Results – No Willow Flycatchers were detected during the three surveys conducted and no incidental Willow Flycatchers were reported (Appendix 1).

2001 Results – Four Willow Flycatchers were detected during period 1, but no detections occurred during periods 2 or 3, in a total of 15.50 survey hours (Table 7). There were no incidental sightings of flycatchers reported during the survey season. No nesting behavior was observed and no nests were found during the 1.0 hour spent nest searching. Brown-headed Cowbirds and recent signs of livestock were present during every survey.

2001 Survey Area – The last four surveys were conducted primarily along the edge of the Rio Grande for the length of the site. Mature cottonwoods provided the dominant canopy cover up to the river's edge and a relatively dry, narrow strip (~10m wide) of mostly Russian olive and saltcedar provided the understory bordering the river. The four flycatchers detected in 2001 were found in this narrow strip of vegetation.

Status – Willow Flycatchers used this site for stopover during migration in the 2001 survey season and they may do so in the future. However, there was no evidence to suggest that the Southwestern Willow Flycatcher used the site for breeding in 2000 and 2001 (Appendix 3). Future breeding by Southwestern Willow Flycatchers on this site is not probable because of the lack of breeding flycatchers in 2000 and 2001, and because the small amount of potentially suitable breeding habitat on this site was dry and narrow.

Middle 4

2000 Results – No Willow Flycatchers were detected during the three surveys conducted and no incidental Willow Flycatchers were reported (Appendix 1).

2001 Results – No Willow Flycatchers were detected during all five surveys, in a total of 16.92 survey hours (Table 8). In addition, no incidental sightings of flycatchers were reported during the survey season. Brown-headed Cowbirds and recent signs of livestock were present during every survey.

2001 Survey Area – The last four surveys were conducted primarily between the edge of the Rio Grande and the Bosque for the length of the site. The vegetation along the river was relatively dry and was characterized by thin to dense saltcedar stands (2-3m tall) with interspersed clearings.

Status – Given the lack of Willow Flycatcher detections in 2000 and 2001, it is unlikely that Willow Flycatchers will use this site for stopover during migration in the future. Potential future use of this site by breeding Southwestern Willow Flycatchers is even lower because very little potentially suitable habitat exists on this site.

Middle 5

2000 Results – Surveys for Southwestern Willow Flycatchers were not conducted by RMRS.

2001 Results – No Willow Flycatchers were detected during the single survey, in a total of 8.83 survey hours (Table 9). In addition, no incidental sightings of flycatchers were reported during the survey season. Brown-headed Cowbirds were present during the survey and recent signs of livestock were absent.

2001 Survey Area – The entire site was surveyed. Much of the vegetation consisted of a mix of species including 1-2 m high sweet clover (*Melilotus spp.*), 1-2m high sunflower (*Helianthus spp.*), young Russian olive, and young saltcedar. The northern end of the site contained a large, young monospecific stand of coyote willow (~2.5m tall).

Status – There is a possibility that migrant Willow Flycatchers and breeding Southwestern Willow Flycatchers used this site in 2001, but RMRS could find no evidence to support either case during the one survey conducted. Maturation of the vegetation on the site may increase its suitability, which could attract migrating Willow Flycatchers and, possibly, breeding Southwestern Willow Flycatchers in the future.

Middle 6

2000 Results – Surveys for Southwestern Willow Flycatchers were not conducted by RMRS.

2001 Results – No Willow Flycatchers were detected during the single survey, in a total of 3.0 survey hours (Table 10). In addition, no incidental sightings of flycatchers were reported throughout the season. Brown-headed Cowbirds were present during the survey and recent signs of livestock were absent.

2001 Survey Area – The entire site was surveyed. There was a mix of vegetation on this site and diverse ground cover. Common species included saltcedar, coyote willow, mulberry, and young cottonwoods. A dense stand of coyote willow (2-3m tall) was located on the southern portion of the site.

Status – There is a possibility that migrant Willow Flycatchers and breeding Southwestern Willow Flycatchers used this site in 2001, but RMRS could find no evidence to support either case during the one survey conducted. Maturation of the vegetation on the site may increase its suitability, which could attract migrating Willow Flycatchers and possibly breeding Southwestern Willow Flycatchers in the future.

South 1

2000 Results – No Willow Flycatchers were detected during the three surveys conducted and no incidental Willow Flycatchers were reported (Appendix 1).

2001 Results – No Willow Flycatchers were detected during all five surveys, in a total of 14.83 survey hours (Table 11). In addition, no incidental sightings of flycatchers were reported during the survey season. Brown-headed Cowbirds and recent signs of livestock were present during every survey.

2001 Survey Area – The last four surveys were conducted primarily along the edge of the Rio Grande for the length of the site. The vegetation along the river was very open and dry. It was characterized by thin stands of saltcedar with a mature cottonwood overstory.

Status – Given the lack of Willow Flycatcher detections in 2000 and 2001, it is unlikely that Willow Flycatchers will use this site for stopover during migration in the future. Potential future use of this site by breeding Southwestern Willow Flycatchers is even lower because very little potentially suitable habitat exists on this site.

South 2

2000 Results – No Willow Flycatchers were detected during the three surveys conducted and no incidental Willow Flycatchers were reported (Appendix 1).

2001 Results – No Willow Flycatchers were detected during all five surveys, in a total of 17.25 survey hours (Table 12). Two incidental sightings of a single flycatcher each during period 1 were reported. Brown-headed Cowbirds were present during every survey and recent signs of livestock were present during all but the second survey.

2001 Survey Area – The last four surveys were conducted primarily along the edge of the Rio Grande for the length of the site. The vegetation along the river was strongly dominated by dense stands of saltcedar (2-3m high) with a mature cottonwood overstory.

Status – Willow Flycatchers used this site for stopover during migration in the 2001 survey season and they may do so in the future. There is a limited probability of future use of this site by Southwestern Willow Flycatchers for breeding because there was no indication of breeding activity in 2000 and 2001, and potential suitable habitat on this site is minimal.

South 3

2000 Results – No Willow Flycatchers were detected during the three surveys conducted and no incidental Willow Flycatchers were reported (Appendix 1).

2001 Results – No Willow Flycatchers were detected during all five surveys, in a total of 13.08 survey hours (Table 13). A single incidental sighting of two flycatchers was reported during period 1. Brown-headed Cowbirds were present during every survey and recent signs of livestock were absent during all surveys.

2001 Survey Area – The last four surveys were conducted primarily along the eastern edge of the site, which is adjacent to the Low Flow Conveyance Channel that parallels the Rio Grande. This dry site was dominated by mature cottonwoods with a fairly open understory consisting mostly of saltcedar and some native components.

Status – Willow Flycatchers used this site for stopover during migration in the 2001 survey season and they may do so in the future. There is a limited probability of future use of this site by breeding Southwestern Willow Flycatchers because there was no indication of breeding activity in 2000 and 2001, and potentially suitable habitat on this site is minimal.

South 4

2000 Results – No Willow Flycatchers were detected during the three surveys conducted and no incidental Willow Flycatchers were reported (Appendix 1).

2001 Results – No Willow Flycatchers were detected during all five surveys, in a total of 15.42 survey hours (Table 14). In addition, no incidental sightings of flycatchers were reported throughout the season. Brown-headed Cowbirds were present during every survey, while recent signs of livestock were absent during every survey.

2001 Survey Area – The last four surveys were conducted primarily along the eastern edge of the site, which is adjacent to the Low Flow Conveyance Channel, paralleling the Rio Grande. Marshy areas on the site were also surveyed. The site was mostly dry, but some marshy areas existed in the southwestern portion of the site near the channel. Mature cottonwoods stood over an understory of mostly saltcedar and some native components, including screwbean mesquite, New Mexico olive, coyote willow, and seep willow. There was a thick stand of saltcedar on the site, located a distance away from the channel.

Status – Since Willow Flycatchers were not detected in 2000 and 2001, it is unlikely that Willow Flycatcher will use this site for stopover during migration in the future. Probability of future use of this site by breeding Southwestern Willow Flycatchers is also unlikely because little potentially suitable habitat exists on this site.

South 5

2000 Results – Surveys for Southwestern Willow Flycatchers were not conducted by RMRS.

2001 Results – No Willow Flycatchers were detected during the single survey, in a total of 3.17 survey hours (Table 15). An incidental sighting of two flycatchers during period 2 was reported. Brown-headed Cowbirds and recent signs of livestock were present during the survey.

2001 Survey Area – The entire site was surveyed. Tall grasses and coyote willow (~2m) paralleled the river. The southern end also had saltcedar and Russian olive along the river.

Status – Willow Flycatchers used this site for stopover during migration in the 2001 survey season and they may do so in the future. There is a possibility that breeding Southwestern Willow Flycatchers used this site in 2001, but RMRS could find no evidence to support this during the one survey conducted. Maturation of the vegetation on the site may increase its suitability, which could attract migrating Willow Flycatchers and possibly breeding Southwestern Willow Flycatchers in the future.

South 6

2000 Results – Surveys for Southwestern Willow Flycatchers were not conducted by RMRS.

2001 Results – No Willow Flycatchers were detected during the single survey, in a total of 0.50 survey hours (Table 16). In addition, no incidental sightings of flycatchers were reported throughout the season. Brown-headed Cowbirds were present during the survey and recent signs of livestock were absent.

2001 Survey Area – The entire site was surveyed. The site bordered the Lowflow Conveyance Channel, which parallels the Rio Grande. The majority of the site consisted of young cottonwoods, coyote willow, seep willow and saltcedar.

Status – There is a possibility that migrant Willow Flycatchers and breeding Southwestern Willow Flycatchers used this site in 2001, but RMRS could find no evidence to support either case during the one survey conducted. Maturation of the vegetation on the site may increase its suitability, which could attract migrating Willow Flycatchers and possibly breeding Southwestern Willow Flycatchers in the future. However, the site is relatively small and is located a distance away from the river, which may decrease the probability of flycatcher use.

CONCLUSION

The Southwestern Willow Flycatcher is one of five recognized subspecies of the Willow Flycatcher (*E. t. brewsteri*, *E. t. adastus*, *E. t. trailli*, *E. t. campestris*, and *E. t. extimus*). All Willow Flycatcher subspecies breed north of the Southwestern Willow Flycatcher (*E. t. extimus*)

(Browning 1993, Sedgwick 2000), and some, if not all, of these subspecies migrate through its breeding habitat. The paler plumage of the Southwestern Willow Flycatcher sets it apart from other Willow Flycatcher subspecies (Sedgwick 2000, Sogge et al. 1997), and differences between the songs of the Southwestern Willow Flycatcher (*E. t. extimus*) and its closest northern relative, *E. t. adastus*, have been discovered (Sedgwick 2000). The “northern extent of pure forms of *E. t. extimus* in New Mexico remains unclear” because “song forms intermediate to *adastus* and *extimus* occur in northern New Mexico” (Sedgwick 2000:7).

In 1995, the US Fish and Wildlife Service listed the Southwestern Willow Flycatcher as federally endangered. In an attempt to determine the breeding status of Southwestern Willow Flycatchers on twenty sites along the Middle Rio Grande, the USDA Forest Service Rocky Mountain Research Station conducted standardized USFWS Southwestern Willow Flycatcher surveys 15 May – 17 July 2000 and 15 May – 17 July 2001. Sixteen of the twenty sites were sited for fuels reduction manipulation experiments. Given the endangered status of the Southwestern Willow Flycatcher, it is crucial to understand their use of these sites before vegetation on these sites is experimentally altered.

No Willow Flycatchers were detected during the 2000 survey season. Willow Flycatcher migrants were detected using tape playback methods from 22 May to 6 June 2001 at four of the 12 fuels reduction sites. Incidental sightings of migrants occurred from 22-30 May 2001. Behavioral observations of detected flycatchers and nest searches in the vegetation where they were found resulted in no indication of breeding activity. Therefore, no Southwestern Willow Flycatchers were detected during the 2001 survey season, but other Willow Flycatcher subspecies appear to use some of the sites during migration.

Although Southwestern Willow Flycatchers were not detected at the twelve fuels reduction sites or four burn sites, there still is a chance that they may breed at these sites in the future because “breeding populations may reappear at unoccupied sites following 1-5 year absences” (Sogge et al. 1997) and because the suitability of the sites may change over time. The probability of the majority of these sites supporting breeding Southwestern Willow Flycatchers in the future is limited unless specific restoration efforts are made because potentially suitable breeding habitat on the sites is uncommon, and the majority of the potentially suitable breeding habitat have patch sizes that are less than those where flycatchers are typically detected. According to Sogge and Marshall (2000), Southwestern Willow Flycatchers have not been found nesting in narrow, linear riparian habitat patches less than 10 m wide.

All of the sites surveyed in this study were altered to some degree by human activity. The Rio Grande has been channelized along the length of the study area, while roads and trails intersected the riparian habitat. Exotic species were prevalent at each site. Recent signs of livestock were present on many of the sites and the effects of their grazing were apparent in many cases. The majority of the sites were adjacent to pastures where Brown-headed Cowbirds forage and RMRS encountered Brown-headed Cowbirds during every survey (60 surveys total) but one. Approximately a quarter of the sites we surveyed showed signs of recreation including hiking, horseback riding, ATV operation, and campfires. These threats combined with the small amount of fragmented potential habitat available to Southwestern Willow Flycatchers suggest that the chance of acquiring future, successful breeding populations of Southwestern Willow Flycatchers at the study sites is minimal.

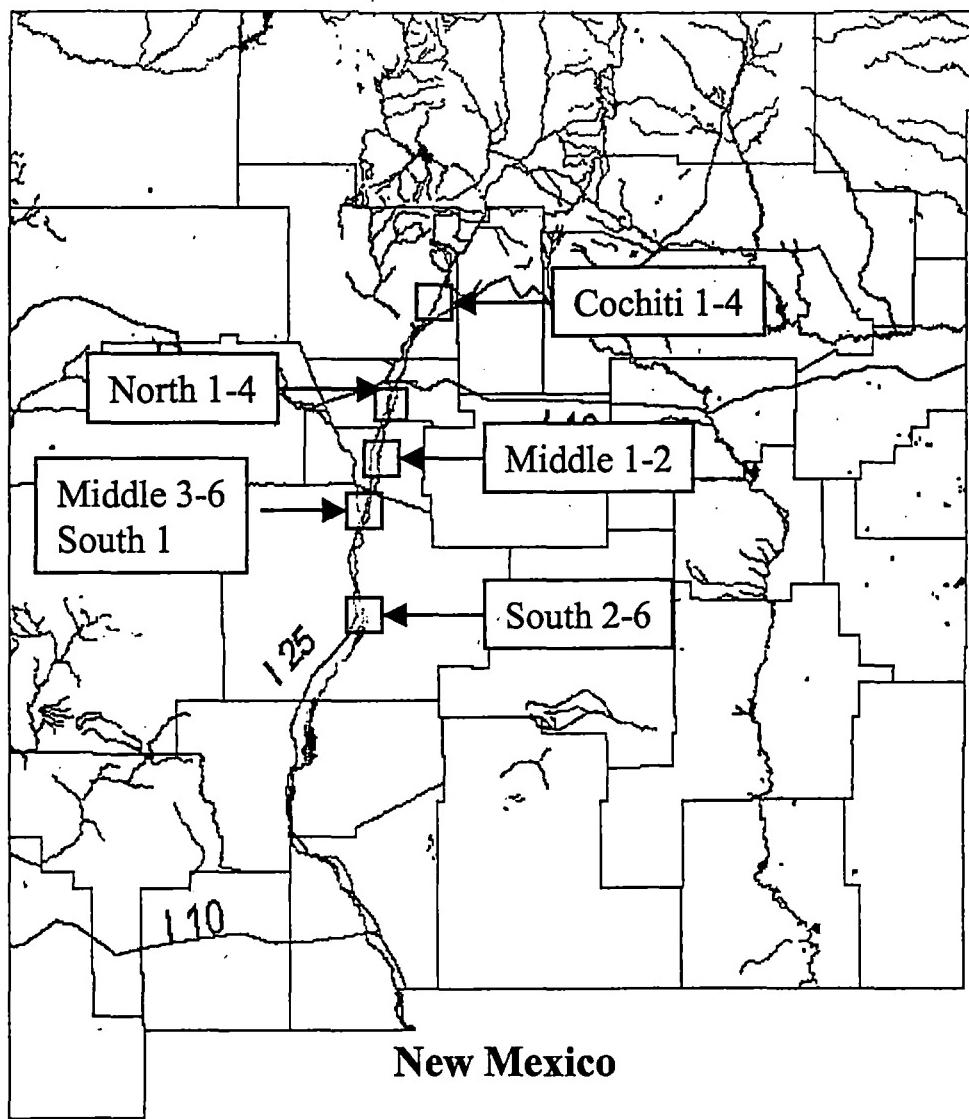
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Figure 1: A map of the sites surveyed along the Middle Rio Grande for Southwestern Willow Flycatchers by the USDA Rocky Mountain Research Station (RMRS) during 2000 and 2001.



APPENDIX 1: Survey forms of standardized US Fish and Wildlife Service surveys for Southwestern Willow Flycatchers conducted by the USDA Forest Service Rocky Mountain Research Station (RMRS) 15 May – 17 July 2000.

APPENDIX 2: Survey forms of standardized US Fish and Wildlife Service surveys for Southwestern Willow Flycatchers conducted by the USDA Forest Service Rocky Mountain Research Station (RMRS) 15 May – 17 July 2001. The forms document tape playback surveys and nest search efforts.

APPENDIX 3: A guide to interpreting survey results from Sogge et al. (1997:22).

Survey results			Interpretation
WIFLs detected during survey? Y/N			
#1	#2	#3	
N	N	N	Not applicable
N or Y	N or Y	N	None
N or Y	N or Y	Y	None
N or Y	N or Y	Y	Presence of another "unchallenged" willow flycatcher in the immediate vicinity (indicates possible pair); whitt or interaction calls between nearby flycatchers; counter singing or physical aggression against another flycatcher; physical aggression against brown-headed cowbirds
N or Y	N or Y	Y	Willow Flycatcher copulating; flycatcher carrying nest material, food or fecal sac; an active nest; adult flycatchers feeding fledged young

Table 1 – Results of standardized US Fish and Wildlife Service surveys for Southwestern Willow Flycatchers conducted by the USDA Forest Service Rocky Mountain Research Station (RMRS) 15 May – 17 July 2001. Incidental sightings were reported by RMRS fuels reduction biologists. Universal Transverse Mircator coordinates are provided for all Willow Flycatchers detected during surveys.

North 1	Period 1	Period 2	Period 3		
	05/23/01	06/01/01	06/22/01	07/03/01	07/11/01
# of Willow Flycatchers Observed	1 (N:3875599 E:0346844)	2 (N:3874932 E:0346344) (N:3875599 E:0346844)	0	0	0
Brown-headed Cowbirds Detected? Y/N	N	Y	Y	Y	Y
Recent Sign of Livestock? Y/N	N	Y	Y	N	Y
Survey Effort (hrs.)	4.20	4.17	3.50	3.50	3.00
Total Survey Effort = 18.37 hrs					
# of Nests Found = 0		Total Nest Search Effort = 4.33 hrs			

Table 2 – Results of standardized US Fish and Wildlife Service surveys for Southwestern Willow Flycatchers conducted by the USDA Forest Service Rocky Mountain Research Station (RMRS) 15 May – 17 July 2001. Incidental sightings were reported by RMRS fuels reduction biologists. Universal Transverse Mircator coordinates are provided for all Willow Flycatchers detected during surveys.

North 2	Period 1	Period 2	Period 3		
	05/23/01	06/01/01	06/22/01	07/03/01	07/11/01
# of Willow Flycatchers Observed	0	0	0	0	0
Brown-headed Cowbirds Detected? Y/N	Y	Y	Y	Y	Y
Recent Sign of Livestock? Y/N	Y	N	N	N	N
Survey Effort (hrs.)	4.25	4.00	3.75	3.00	3.25
Total Survey Effort = 18.75 hrs					
# of Nests Found = 0		Total Nest Search Effort = 0 hrs			

Table 3 – Results of standardized US Fish and Wildlife Service surveys for Southwestern Willow Flycatchers conducted by the USDA Forest Service Rocky Mountain Research Station (RMRS) 15 May – 17 July 2001. Incidental sightings were reported by RMRS fuels reduction biologists. Universal Transverse Mircator coordinates are provided for all Willow Flycatchers detected during surveys.

North 3	Period 1	Period 2	Period 3		
	05/23/01	06/01/01	06/22/01	07/03/01	07/11/01
# of Willow Flycatchers Observed	0	0	0	0	0
Brown-headed Cowbirds Detected? Y/N	Y	Y	Y	Y	Y
Recent Sign of Livestock? Y/N	N	Y	N	N	N
Survey Effort (hrs.)	4.37	3.00	3.50	3.00	3.00
Total Survey Effort = 16.87 hrs					
# of Nests Found = 0			Total Nest Search Effort = 0 hrs		

Table 4 – Results of standardized US Fish and Wildlife Service surveys for Southwestern Willow Flycatchers conducted by the USDA Forest Service Rocky Mountain Research Station (RMRS) 15 May – 17 July 2001. Incidental sightings were reported by RMRS fuels reduction biologists. Universal Transverse Mircator coordinates are provided for all Willow Flycatchers detected during surveys.

North 4	Period 1	Period 2	Period 3		
	05/23/01	06/01/01	06/28/01	07/03/01	07/11/01
# of Willow Flycatchers Observed	0	0	0	0	0
Brown-headed Cowbirds Detected? Y/N	Y	Y	Y	Y	Y
Recent Sign of Livestock? Y/N	Y	Y	N	N	N
Survey Effort (hrs.)	3.68	3.75	2.75	3.00	2.00
Total Survey Effort = 15.18 hrs					
# of Nests Found = 0			Total Nest Search Effort = 0 hrs		

Table 5 – Results of standardized US Fish and Wildlife Service surveys for Southwestern Willow Flycatchers conducted by the USDA Forest Service Rocky Mountain Research Station (RMRS) 15 May – 17 July 2001. Incidental sightings were reported by RMRS fuels reduction biologists. Universal Transverse Mircator coordinates are provided for all Willow Flycatchers detected during surveys.

Middle 1	Period 1	Period 2	Period 3			Incidental Sightings
	05/25/01	06/04/01	06/26/01	07/02/01	07/12/01	
# of Willow Flycatchers Observed	0	1 (N:3857391 E:0343188)	0	0	0	1
Brown-headed Cowbirds Detected? Y/N	Y	Y	Y	Y	Y	
Recent Sign of Livestock? Y/N	Y	N	Y	N	Y	
Survey Effort (hrs.)	3.75	5.00	2.25	2.00	2.50	
Total Survey Effort = 15.50 hrs						
# of Nests Found = 0			Total Nest Search Effort = 0.67 hrs			

Table 6 – Results of standardized US Fish and Wildlife Service surveys for Southwestern Willow Flycatchers conducted by the USDA Forest Service Rocky Mountain Research Station (RMRS) 15 May – 17 July 2001. Incidental sightings were reported by RMRS fuels reduction biologists. Universal Transverse Mircator coordinates are provided for all Willow Flycatchers detected during surveys.

Middle 2	Period 1	Period 2	Period 3		
	05/25/01	06/04/01	06/26/01	07/02/01	07/12/01
# of Willow Flycatchers Observed	6 (4 at N:3850584 E:0341910) (1 at N:3850428 E:0341830) (1 at N:3850089 E:0341680)	0	0	0	0
Brown-headed Cowbirds Detected? Y/N	Y	Y	Y	Y	Y
Recent Sign of Livestock? Y/N	N	N	N	N	N
Survey Effort (hrs.)	4.50	4.33	3.25	2.33	2.75
Total Survey Effort = 17.16 hrs					
# of Nests Found = 0		Total Nest Search Effort = 4.17 hrs			

Table 7 – Results of standardized US Fish and Wildlife Service surveys for Southwestern Willow Flycatchers conducted by the USDA Forest Service Rocky Mountain Research Station (RMRS) 15 May – 17 July 2001. Incidental sightings were reported by RMRS fuels reduction biologists. Universal Transverse Mircator coordinates are provided for all Willow Flycatchers detected during surveys.

Middle 3	Period 1	Period 2	Period 3		
	05/25/01	06/04/01	06/26/01	07/02/01	07/12/01
# of Willow Flycatchers Observed	4 (2 at N:3822431 E:0336701) (2 at N:3822583 E:0336952)	0	0	0	0
Brown-headed Cowbirds Detected? Y/N	Y	Y	Y	Y	Y
Recent Sign of Livestock? Y/N	Y	Y	Y	N	N
Survey Effort (hrs.)	5.25	3.75	1.00	2.50	3.00
Total Survey Effort = 15.50 hrs					
# of Nests Found = 0		Total Nest Search Effort = 1.00 hrs			

Table 8 – Results of standardized US Fish and Wildlife Service surveys for Southwestern Willow Flycatchers conducted by the USDA Forest Service Rocky Mountain Research Station (RMRS) 15 May – 17 July 2001. Incidental sightings were reported by RMRS fuels reduction biologists. Universal Transverse Mircator coordinates are provided for all Willow Flycatchers detected during surveys.

Middle 4	Period 1	Period 2	Period 3		
	05/25/01	06/04/01	06/26/01	07/02/01	07/12/01
# of Willow Flycatchers Observed	0	0	0	0	0
Brown-headed Cowbirds Detected? Y/N	Y	Y	Y	Y	Y
Recent Sign of Livestock? Y/N	Y	Y	Y	Y	Y
Survey Effort (hrs.)	4.25	4.00	2.50	3.50	2.67
Total Survey Effort = 16.92 hrs					
# of Nests Found = 0		Total Nest Search Effort = 0 hrs			

Table 9 – Results of standardized US Fish and Wildlife Service surveys for Southwestern Willow Flycatchers conducted by the USDA Forest Service Rocky Mountain Research Station (RMRS) 16 June 2001. Incidental sightings were reported by RMRS fuels reduction biologists. This site had burned prior to the survey and no experiments are to be conducted on the site. Universal Transverse Mircator coordinates are provided for all Willow Flycatchers detected during surveys.

Middle 5	Period 2	
	06/20/01	
# of Willow Flycatchers Observed	0	
Brown-headed Cowbirds Detected? Y/N		Y
Recent Sign of Livestock? Y/N		N
Survey Effort (hrs.)	8.83	
Total Survey Effort = 8.83 hrs		
# of Nests Found = 0	Total Nest Search Effort = 0 hrs	

Table 10 – Results of standardized US Fish and Wildlife Service surveys for Southwestern Willow Flycatchers conducted by the USDA Forest Service Rocky Mountain Research Station (RMRS) 16 June 2001. Incidental sightings were reported by RMRS fuels reduction biologists. This site had burned prior to the survey and no experiments are to be conducted on the site. Universal Transverse Mircator coordinates are provided for all Willow Flycatchers detected during surveys.

Middle 6	Period 2	
	06/20/01	
# of Willow Flycatchers Observed	0	
Brown-headed Cowbirds Detected? Y/N		Y
Recent Sign of Livestock? Y/N		N
Survey Effort (hrs.)	3.00	
Total Survey Effort = 3.00 hrs		
# of Nests Found = 0	Total Nest Search Effort = 0 hrs	

Table 11 – Results of standardized US Fish and Wildlife Service surveys for Southwestern Willow Flycatchers conducted by the USDA Forest Service Rocky Mountain Research Station (RMRS) 15 May – 17 July 2001. Incidental sightings were reported by RMRS fuels reduction biologists. Universal Transverse Mircator coordinates are provided for all Willow Flycatchers detected during surveys.

South 1	Period 1		Period 2			Period 3		
	05/30/01	06/20/01	06/29/01	07/06/01	07/16/01			
# of Willow Flycatchers Observed	0	0	0	0	0			
Brown-headed Cowbirds Detected? Y/N	Y	Y	Y	Y	Y			
Recent Sign of Livestock? Y/N	Y	Y	Y	Y	Y			
Survey Effort (hrs.)	4.33	3.00	2.75	1.50	3.25			
Total Survey Effort = 14.83 hrs								
# of Nests Found = 0	Total Nest Search Effort = 0 hrs							

Table 12 – Results of standardized US Fish and Wildlife Service surveys for Southwestern Willow Flycatchers conducted by the USDA Forest Service Rocky Mountain Research Station (RMRS) 15 May – 17 July 2001. Incidental sightings were reported by RMRS fuels reduction biologists. Universal Transverse Mircator coordinates are provided for all Willow Flycatchers detected during surveys.

South 2	Period 1	Period 2	Period 3			Incidental Sightings	
	05/30/01	06/15/01	06/29/01	07/06/01	07/16/01	05/23/01	05/30/01
# of Willow Flycatchers Observed	0	0	0	0	0	1	1
Brown-headed Cowbirds Detected? Y/N	Y	Y	Y	Y	Y		
Recent Sign of Livestock? Y/N	Y	N	Y	Y	Y		
Survey Effort (hrs.)	5.42	3.58	2.50	3.00	2.75		
Total Survey Effort = 17.25 hrs							
# of Nests Found = 0				Total Nest Search Effort = 0 hrs			

Table 13 – Results of standardized US Fish and Wildlife Service surveys for Southwestern Willow Flycatchers conducted by the USDA Forest Service Rocky Mountain Research Station (RMRS) 15 May – 17 July 2001. Incidental sightings were reported by RMRS fuels reduction biologists. Universal Transverse Mircator coordinates are provided for all Willow Flycatchers detected during surveys.

South 3	Period 1	Period 2	Period 3			Incidental Sightings
	05/30/01	06/15/01	06/29/01	07/06/01	07/16/01	05/22/01
# of Willow Flycatchers Observed	0	0	0	0	0	2
Brown-headed Cowbirds Detected? Y/N	Y	Y	Y	Y	Y	
Recent Sign of Livestock? Y/N	N	N	N	N	N	
Survey Effort (hrs.)	3.50	2.50	2.00	3.08	2.00	
Total Survey Effort = 13.08 hrs						
# of Nests Found = 0			Total Nest Search Effort = 0 hrs			

Table 14 – Results of standardized US Fish and Wildlife Service surveys for Southwestern Willow Flycatchers conducted by the USDA Forest Service Rocky Mountain Research Station (RMRS) 15 May – 17 July 2001. Incidental sightings were reported by RMRS fuels reduction biologists. Universal Transverse Mircator coordinates are provided for all Willow Flycatchers detected during surveys.

South 4	Period 1	Period 2	Period 3		
	05/30/01	06/15/01	06/29/01	07/06/01	07/16/01
# of Willow Flycatchers Observed	0	0	0	0	0
Brown-headed Cowbirds Detected? Y/N	Y	Y	Y	Y	Y
Recent Sign of Livestock? Y/N	N	N	N	N	N
Survey Effort (hrs.)	3.17	3.50	3.50	2.50	2.75
Total Survey Effort = 15.42 hrs					
# of Nests Found = 0			Total Nest Search Effort = 0 hrs		

Table 15 – Results of standardized US Fish and Wildlife Service surveys for Southwestern Willow Flycatchers conducted by the USDA Forest Service Rocky Mountain Research Station (RMRS) 16 June 2001. Incidental sightings were reported by RMRS fuels reduction biologists. This site had burned prior to the survey and no experiments are to be conducted on the site. Universal Transverse Mircator coordinates are provided for all Willow Flycatchers detected during surveys.

South 5	Period 2		Incidental Sightings
	06/15/01	05/30/01	
# of Willow Flycatchers Observed	0	2	
Brown-headed Cowbirds Detected? Y/N	Y		
Recent Sign of Livestock? Y/N	Y		
Survey Effort (hrs.)	3.17		
Total Survey Effort = 3.17 hrs			
# of Nests Found = 0	Total Nest Search Effort = 0 hrs		

Table 16 – Results of standardized US Fish and Wildlife Service surveys for Southwestern Willow Flycatchers conducted by the USDA Forest Service Rocky Mountain Research Station (RMRS) 16 June 2001. Incidental sightings were reported by RMRS fuels reduction biologists. This site had burned prior to the survey and no experiments are to be conducted on the site. Universal Transverse Mircator coordinates are provided for all Willow Flycatchers detected during surveys.

South 6	Period 2	
	06/15/01	
# of Willow Flycatchers Observed	0	
Brown-headed Cowbirds Detected? Y/N	Y	
Recent Sign of Livestock? Y/N	N	
Survey Effort (hrs.)	0.50	
Total Survey Effort = 0.50 hrs		
# of Nests Found = 0	Total Nest Search Effort = 0 hrs	

Fill in the following information completely. Submit original form. Retain copy for your records.

Name of Reporting Individual Hira A. Walker Phone # 505-724-3680

Affiliation USDA Forest Service, Rocky Mountain Research Station Email hawalker@fs.fed.us

Site Name Middle 1

Did you verify that this site name is consistent with that used in previous years? Yes No (circle one)

Management Authority for Survey Area (circle one): Federal Municipal/County State Tribal Private

Name of Management Entity or Owner (e.g., Tonto National Forest) Middle Rio Grande Conservancy District

Length of area surveyed: 868m (specify units, e.g., miles = mi, kilometers = km, meters = m)

Did you survey the same general area during each visit to this site this year? Yes No If no, summarize in comments below.

If site was surveyed last year, did you survey the same general area this year? Yes No If no, summarize in comments below.

Vegetation Characteristics: Overall, are the species in tree/shrub layer at this site comprised predominantly of (check one):

- Native broadleaf plants Mixed native and exotic pants (mostly native)
(entirely or almost entirely, includes high-elevation willow)
 Mixed native and exotic plants (mostly exotic) Exotic/introduced plants (entirely or almost entirely)

Identify the 2-3 predominant tree/shrub species: Cottonwood, Russian olive, saltcedar

Average height of canopy: 15m (specify units)

Was surface water or saturated soil present at or adjacent to site? Yes No (circle one)

Distance from the site to surface water or saturated soil: 0-150m (specify units)

Did hydrological conditions change significantly among visits (did the site flood or dry out)? Yes No (circle one)
If yes, describe in comments section below.

Remember to attach a Xerox copy of a USGS quad/topographical map (REQUIRED) of the survey area, noting the survey site and location of WIFL detections. You may also include a sketch or aerial photograph showing details of site location, patch shape, survey route in relation to patch, and location of any willow flycatchers or willow flycatcher nests detected. Such sketches or photographs are welcomed, but DO NOT substitute for the required USGS quad map.

Comments (attach additional sheets if necessary):

The first survey was conducted over the entire plot. Following surveys were conducted within 30m of the river, conveyance channels, and marshes where potential suitable habitat for Southwestern Willow Flycatchers was found. In the previous year, surveys were conducted in the interior of the plot in the cottonwood gallery forest.

Southwestern Willow Flycatcher Survey and Detection Form

Site Name Middle 2 Was site surveyed in previous year? Yes No

If yes, what site name was used? Middle 2

County Valencia State NM USGS Quad Name _____

Is copy of USGS map marked with survey area and WIFL sightings attached (as required)? Yes No

Site Coordinates: Start: N 3851001 E 0342080 UTM
 Stop: N 3849848 E 0341711 UTM Zone _____

Elevation _____ feet / meters (circle one)

*** Fill in additional site information on back of this page ***

Survey # Observer(s)	Date (m/d/y) Survey time	Number of WIFLs Found	Estimated Number of Pairs	Estimated Number of Territories	Nest(s) Found? Y or N	Cowbirds Detected? Y or N	Presence of Livestock, Recent sign Y or N	Comments about this survey (e.g., evidence of pairs or breeding, number of nests, nest contents or number of fledglings seen; potential threats)
1 <u>CDC</u>	Date 05/25/01 Start 0530 Stop 1000 total hrs <u>4.50</u>	6	0	0	N	Y (~16, 8 of which were right with WIFLs)	N	(01-04) N 3850584 E 0341910 (05) N 3850428 E 0341830 (06) N 3850089 E 0341680
Nest Search <u>JTD,HAW,SLL</u> <u>CCB,CDC</u>	Date 05/31/01 Start 0700 Stop 1000 total hrs <u>3.0</u>	1	0	0	N	Y	N	1 WIFL found in general area of (05) at: N 3850446 E 0341862
2 <u>CCB</u>	Date 06/04/01 Start 0540 Stop 1000 total hrs <u>0.67</u>	0	0	0	N	Y	N	Heard possible <i>whitting</i> , but no <i>fitz-bew</i> .
Nest Search <u>CDC</u> <u>CCB</u>	Date 06/07/01 Start 0635 Stop 0745 total hrs <u>1.17</u>	0	0	0	N	Y (lots)	Y	Spent entire time sitting in thick willow area right along river (by WIFLs 01-05).
3 <u>SLL</u>	Date 06/26/01 Start 0545 Stop 0900 total hrs <u>3.25</u>	0	0	0	N	Y	N	Started survey on south end of plot.

Name of Reporting Individual Hira A. Walker Date Report Completed 08/31/01

Submit the original of this form. Retain a copy for your records.

Site Name Middle 2

Survey # Observer(s)	Date (m/d/y) Survey time	Number of WIFLs Found	Estimated Number of Pairs	Estimated Number of Territories	Nest(s) Found? Y or N	Cowbirds Detected? Y or N	Presence of Livestock, Recent sign Y or N	Comments about this survey (e.g., evidence of pairs or breeding, number of nests, nest contents or number of fledges seen; potential threats)
4 <u>CCB</u>	Date 07/02/01 Start 0550 Stop 0810 total hrs <u>2.33</u>	0	0	0	N	Y	N	Started survey at the north end of the plot.
5 <u>CDC</u>	Date 07/12/01 Start 0515 Stop 0800 total hrs <u>2.75</u>	0	0	0	N	Y (few)	N	Started survey at the south end of the plot.
	Date _____ Start _____ Stop _____ total hrs _____							
	Date _____ Start _____ Stop _____ total hrs _____							
	Date _____ Start _____ Stop _____ total hrs _____							
Overall Site Summary (Total only resident WIFLs) Total survey hrs <u>21.33</u>	Adults	Pairs	Territories	Nests	Were any WIFLs color-banded? Yes <input checked="" type="radio"/> No			If yes, report color combination(s) in the comments section on back of form
	6	0	0	0				

Name of Reporting Individual Hira A. Walker

Date Report Completed 08/31/01

Submit the original of this form. Retain a copy for your records.

*Surveys conducted by Hira A. Walker
for the purpose of monitoring bird populations.*

Fill in the following information completely. Submit original form. Retain copy for your records.

Name of Reporting Individual Hira A. Walker Phone # 505-724-3680

Affiliation USDA Forest Service, Rocky Mountain Research Station Email hawalker@fs.fed.us

Site Name Middle 2

Did you verify that this site name is consistent with that used in previous years? Yes No (circle one)

Management Authority for Survey Area (circle one): Federal Municipal/County State Tribal Private

Name of Management Entity or Owner (e.g., Tonto National Forest) Middle Rio Grande Conservancy District

Length of area surveyed: 1211m (specify units, e.g., miles = mi, kilometers = km, meters = m)

Did you survey the same general area during each visit to this site this year? Yes / No If no, summarize in comments below.

If site was surveyed last year, did you survey the same general area this year Yes / No If no, summarize in comments below.

Vegetation Characteristics: Overall, are the species in tree/shrub layer at this site comprised predominantly of (check one):

- Native broadleaf plants Mixed native and exotic plants (mostly native)
(entirely or almost entirely, includes high-elevation willow)
 Mixed native and exotic plants (mostly exotic) Exotic/introduced plants (entirely or almost entirely)

Identify the 2-3 predominant tree/shrub species: Cottonwood, Russian olive, saltcedar

Average height of canopy: 15m (specify units)

Was surface water or saturated soil present at or adjacent to site? Yes No (circle one)

Distance from the site to surface water or saturated soil: 0-150m (specify units)

Did hydrological conditions change significantly among visits (did the site flood or dry out)? Yes No (circle one)
If yes, describe in comments section below.

Remember to attach a Xerox copy of a USGS quad/topographical map (REQUIRED) of the survey area, noting the survey site and location of WIFL detections. You may also include a sketch or aerial photograph showing details of site location, patch shape, survey route in relation to patch, and location of any willow flycatchers or willow flycatcher nests detected. Such sketches or photographs are welcomed, but DO NOT substitute for the required USGS quad map.

Comments (attach additional sheets if necessary):

The first survey was conducted over the entire plot. Following surveys were conducted within 30m of the river, conveyance channels, and marshes where potentially suitable habitat for Southwestern Willow Flycatchers was found. In the area along the river there were thick stands of coyote willow, saltcedar, and Russian olive. In the previous year, surveys were conducted in the interior of the plot in the cottonwood gallery forest.

Southwestern Willow Flycatcher Survey and Detection Form

Site Name Middle 3

If yes, what site name was used? Middle 3

Was site surveyed in previous year Yes No

County Valencia

State NM

USGS Quad Name _____

Is copy of USGS map marked with survey area and WIFL sightings attached (as required)? Yes No

Site Coordinates: Start: N 3822693 E 0337228 UTM

Stop: N 3822426 E 0336626 UTM Zone _____

Elevation _____ feet / meters (circle one)

**** Fill in additional site information on back of this page ****

Survey # Observer(s)	Date (m/d/y) Survey time	Number of WIFLs Found	Estimated Number of Pairs	Estimated Number of Territories	Nest(s) Found? Y or N	Cowbirds Detected? Y or N	Presence of Livestock, Recent sign Y or N	Comments about this survey (e.g., evidence of pairs or breeding, number of nests, nest contents or number of fledges seen; potential threats)
1 <u>JTD</u>	Date 05/25/01 Start 0505 Stop 1020 total hrs <u>5.25</u>	4	1	0	N	N	Y	(01) N 3822523 E 0336853 (02) N 3822583 E 0336952 (03-04) N 3822431 E 0336701 Female was seen and heard whitting with WIFLs 03 & 04, which were chasing one another.
Nest Search <u>HAW, JTD, SLL</u> <u>CCB, CDC</u>	Date 05/31/01 Start 0530 Stop 0630 total hrs <u>1.0</u>	0	0	0	N	Y	Y	Time was spent searching for WIFLs 01-04. None were detected.
2 <u>CDC</u>	Date 06/04/01 Start 0620 Stop 1005 total hrs <u>3.75</u>	0	0	0	N	Y (several)	Y	
3 <u>HAW</u>	Date 06/26/01 Start 0545 Stop 0645 total hrs <u>1.0</u>	0	0	0	N	Y	N	
4 <u>SLL</u>	Date 07/02/01 Start 0540 Stop 0810 total hrs <u>2.5</u>	0	0	0	N	Y	N	Started survey on south end of plot. Windy until 0645- resurveyed that area later when wind died down.

Name of Reporting Individual Hira A. Walker

Date Report Completed 08/31/01

Submit the original of this form. Retain a copy for your records.

Site Name Middle 3

Survey # Observer(s)	Date (m/d/y) Survey time	Number of WIFLs Found	Estimated Number of Pairs	Estimated Number of Territories	Nest(s) Found? Y or N	Cowbirds Detected? Y or N	Presence of Livestock, Recent sign Y or N	Comments about this survey (e.g., evidence of pairs or breeding, number of nests, no- contents or number of fledges seen; potential threats)
5 <u>CCB</u>	Date 07/12/01 Start 0515 Stop 0815 total hrs <u>3.0</u>	0	0	0	N	Y	N	Started survey at the south end of the plot.
	Date _____ Start _____ Stop _____ total hrs _____							
	Date _____ Start _____ Stop _____ total hrs _____							
	Date _____ Start _____ Stop _____ total hrs _____							
	Date _____ Start _____ Stop _____ total hrs _____							
Overall Site Summary (Total only resident WIFLs)	Adults	Pairs	Territories	Nests	Were any WIFLs color-banded? Yes <input checked="" type="radio"/> No If yes, report color combination(s) in the comments section on back of form			
Total survey hrs <u>16.50</u>	4	0	0	0				

Name of Reporting Individual Hira A. Walker

Date Report Completed 08/31/01

Submit the original of this form. Retain a copy for your records.

Fill in the following information completely. Submit original form. Retain copy for your records.

Name of Reporting Individual Hira A. Walker Phone # 505-724-3680

Affiliation USDA Forest Service, Rocky Mountain Research Station Email hawalker@fs.fed.us

Site Name Middle 3

Did you verify that this site name is consistent with that used in previous years? Yes No (circle one)

Management Authority for Survey Area (circle one): Federal Municipal/County State Tribal Private

Name of Management Entity or Owner (e.g., Tonto National Forest) Middle Rio Grande Conservancy District

Length of area surveyed: 659m (specify units, e.g., miles = mi, kilometers = km, meters = m)

Did you survey the same general area during each visit to this site this year? Yes / No If no, summarize in comments below.

If site was surveyed last year, did you survey the same general area this year? Yes / No If no, summarize in comments below.

Vegetation Characteristics: Overall, are the species in tree/shrub layer at this site comprised predominantly of (check one):

- Native broadleaf plants Mixed native and exotic pants (mostly native)
(entirely or almost entirely, includes high-elevation willow)
 Mixed native and exotic plants (mostly exotic) Exotic/introduced plants (entirely or almost entirely)

Identify the 2-3 predominant tree/shrub species: Cottonwood, Russian olive, saltcedar

Average height of canopy: 15m (specify units)

Was surface water or saturated soil present at or adjacent to site? Yes No (circle one)

Distance from the site to surface water or saturated soil: 0-150m (specify units)

Did hydrological conditions change significantly among visits (did the site flood or dry out)? Yes No (circle one)
If yes, describe in comments section below.

Remember to attach a Xerox copy of a USGS quad/topographical map (REQUIRED) of the survey area, noting the survey site and location of WIFL detections. You may also include a sketch or aerial photograph showing details of site location, patch shape, survey route in relation to patch, and location of any willow flycatchers or willow flycatcher nests detected. Such sketches or photographs are welcomed, but DO NOT substitute for the required USGS quad map.

Comments (attach additional sheets if necessary):

The first survey was conducted over the entire plot. Following surveys were conducted within 30m of the river, conveyance channels, and marshes where potentially suitable habitat for Southwestern Willow Flycatchers was found. In the previous year, surveys were conducted in the interior of the plot in the cottonwood gallery forest.

Southwestern Willow Flycatcher Survey and Detection Form

Site Name Middle 4

Was site surveyed in previous year Yes No

If yes, what site name was used? Middle 4

County Valencia

State NM

USGS Quad Name _____

Is copy of USGS map marked with survey area and WIFL sightings attached (as required)? Yes No

Site Coordinates: Start: N 3818456 E 0334970 UTM

Stop: N 3817098 E 0334362 UTM Zone _____

Elevation _____ feet / meters (circle one)

** Fill in additional site information on back of this page **

Survey # Observer(s)	Date (m/d/y) Survey time	Number of WIFLs Found	Estimated Number of Pairs	Estimated Number of Territories	Nest(s) Found? Y or N	Cowbirds Detected? Y or N	Presence of Livestock, Recent sign Y or N	Comments about this survey (e.g., evidence of pairs or breeding, number of nests, nest contents or number of fledges seen; potential threats)
1 <u>CCB</u>	Date 05/25/01 Start 0545 Stop 1000 total hrs <u>4.25</u>	0	0	0	N	Y	Y	
2 <u>SLL</u>	Date 06/04/01 Start 0550 Stop 0950 total hrs <u>4.0</u>	0	0	0	N	Y (~8)	Y	Started survey at the north end of the plot.
3 <u>CCB</u>	Date 06/26/01 Start 0600 Stop 0830 total hrs <u>2.50</u>	0	0	0	N	Y	Y	
4 <u>CDC</u>	Date 07/02/01 Start 0600 Stop 0930 total hrs <u>3.50</u>	0	0	0	N	Y (few)	Y	Started survey on south end of plot.
5 <u>JTD</u>	Date 07/12/01 Start 0540 Stop 0820 total hrs <u>2.5</u>	0	0	0	N	Y (~4)	Y	Started survey on south end of plot.
Overall Site Summary (Total only resident WIFLs)		Adults	Pairs	Territories	Nests	Were any WIFLs color-banded? Yes <input checked="" type="radio"/> No		
		0	0	0	0	If yes, report color combination(s) in the comments section on back of form		
Total survey hrs <u>16.92</u>								

Name of Reporting Individual Hira A. Walker

Date Report Completed 08/31/01

Submit the original of this form. Retain a copy for your records.

Fill in the following information completely. Submit original form. Retain copy for your records.

Name of Reporting Individual Hira A. Walker Phone # 505-724-3680

Affiliation USDA Forest Service, Rocky Mountain Research Station Email hawalker@fs.fed.us

Site Name Middle 4

Did you verify that this site name is consistent with that used in previous years? Yes No (circle one)

Management Authority for Survey Area (circle one): Federal Municipal/County State Tribal Private

Name of Management Entity or Owner (e.g., Tonto National Forest) Middle Rio Grande Conservancy District

Length of area surveyed: 1488m (specify units, e.g., miles = mi, kilometers = km, meters = m)

Did you survey the same general area during each visit to this site this year? Yes No If no, summarize in comments below.

If site was surveyed last year, did you survey the same general area this year? Yes No If no, summarize in comments below.

Vegetation Characteristics: Overall, are the species in tree/shrub layer at this site comprised predominantly of (check one):

- Native broadleaf plants Mixed native and exotic plants (mostly native)
(entirely or almost entirely, includes high-elevation willow)
 Mixed native and exotic plants (mostly exotic) Exotic/introduced plants (entirely or almost entirely)

Identify the 2-3 predominant tree/shrub species: Cottonwood, Russian olive, saltcedar

Average height of canopy: 15m (specify units)

Was surface water or saturated soil present at or adjacent to site? Yes No (circle one)

Distance from the site to surface water or saturated soil: 0-150m (specify units)

Did hydrological conditions change significantly among visits (did the site flood or dry out)? Yes No (circle one)
If yes, describe in comments section below.

Remember to attach a Xerox copy of a USGS quad/topographical map (REQUIRED) of the survey area, noting the survey site and location of WIFL detections. You may also include a sketch or aerial photograph showing details of site location, patch shape, survey route in relation to patch, and location of any willow flycatchers or willow flycatcher nests detected. Such sketches or photographs are welcomed, but DO NOT substitute for the required USGS quad map.

Comments (attach additional sheets if necessary):

The first survey was conducted over the entire plot. Following surveys were conducted within 30m of the river, conveyance channels, and marshes where potentially suitable habitat for Southwestern Willow Flycatchers was found. In the previous year, surveys were conducted in the interior of the plot in the cottonwood gallery forest.

Southwestern Willow Flycatcher Survey and Detection Form

Site Name Middle 5 Was site surveyed in previous year? Yes No
 If yes, what site name was used? _____

County Valencia State NM USGS Quad Name _____

Is copy of USGS map marked with survey area and WIFL sightings attached (as required)? Yes No

Site Coordinates: Start: N 3848028 E 0340795 UTM
 Stop: N 3846621 E 0340198 UTM Zone _____

Elevation _____ feet / meters (circle one)

**** Fill in additional site information on back of this page ****

Survey # Observer(s)	Date (m/d/y) Survey time	Number of WIFLs Found	Estimated Number of Pairs	Estimated Number of Territories	Nest(s) Found? Y or N	Cowbirds Detected? Y or N	Presence of Livestock, Recent sign Y or N	Comments about this survey (e.g., evidence of pairs or breeding, number of nests, nest contents or number of fledges seen; potential threats)
IA <u>JTD</u>	Date 06/20/01 Start 0600 Stop 1030 total hrs <u>4.50</u>	0	0	0	N	Y	N	Surveyed eastern half of plot.
IB <u>SLL</u>	Date 06/20/01 Start 0600 Stop 1000 total hrs <u>4.0</u>	0	0	0	N	Y (very many)	N	Surveyed western half of plot.
IC <u>CCB</u>	Date 06/20/01 Start 0940 Stop 1000 total hrs <u>0.33</u>	0	0	0	N	Y	N	Surveyed southwest corner of plot.
	Date Start Stop total hrs							
	Date Start Stop total hrs							
Overall Site Summary (Total only resident WIFLs) Total survey hrs <u>8.83</u>	Adults	Pairs	Territories	Nests	Were any WIFLs color-banded? Yes <input checked="" type="checkbox"/> No			
	0	0	0	0	If yes, report color combination(s) in the comments section on back of form			

Name of Reporting Individual Hira A. Walker Date Report Completed 08/31/01

Submit the original of this form. Retain a copy for your records.

Fill in the following information completely. Submit original form. Retain copy for your records.

Name of Reporting Individual Hira A. Walker Phone # 505-724-3680

Affiliation USDA Forest Service, Rocky Mountain Research Station Email hawalker@fs.fed.us

Site Name Middle 5

Did you verify that this site name is consistent with that used in previous years? Yes No (circle one)

Management Authority for Survey Area (circle one): Federal Municipal/County State Tribal Private

Name of Management Entity or Owner (e.g., Tonto National Forest) Middle Rio Grande Conservancy District

Length of area surveyed: 1528m (specify units, e.g., miles = mi, kilometers = km, meters = m)

Did you survey the same general area during each visit to this site this year? Yes / No If no, summarize in comments below.

If site was surveyed last year, did you survey the same general area this year? Yes / No If no, summarize in comments below.

Vegetation Characteristics: Overall, are the species in tree/shrub layer at this site comprised predominantly of (check one):

- Native broadleaf plants Mixed native and exotic pants (mostly native)
(entirely or almost entirely, includes high-elevation willow)
 Mixed native and exotic plants (mostly exotic) Exotic/introduced plants (entirely or almost entirely)

Identify the 2-3 predominant tree/shrub species: Coyote willow, white sweet clover, saltcedar

Average height of canopy: 3m (specify units)

Was surface water or saturated soil present at or adjacent to site? Yes No (circle one)

Distance from the site to surface water or saturated soil: 0-150m (specify units)

Did hydrological conditions change significantly among visits (did the site flood or dry out)? Yes No (circle one)
If yes, describe in comments section below.

Remember to attach a Xerox copy of a USGS quad/topographical map (REQUIRED) of the survey area, noting the survey site and location of WIFL detections. You may also include a sketch or aerial photograph showing details of site location, patch shape, survey route in relation to patch, and location of any willow flycatchers or willow flycatcher nests detected. Such sketches or photographs are welcomed, but DO NOT substitute for the required USGS quad map.

Comments (attach additional sheets if necessary):

This plot burned in March of 2000. Cottonwood trees are present in the overstory, but were all skeletons of burnt trees. The vegetation was diverse, but consisted of primarily coyote willow, white sweet clover, sunflower, saltcedar, and Russian olive. The entire plot was surveyed.

Southwestern Willow Flycatcher Survey and Detection Form

Site Name Middle 6

Was site surveyed in previous year? Yes No

If yes, what site name was used? _____

County Valencia

State NM

USGS Quad Name _____

Is copy of USGS map marked with survey area and WIFL sightings attached (as required)? Yes No

Site Coordinates: Start: N 3847976 E 0341534 UTM

Stop: N 3847363 E 0341134 UTM Zone _____

Elevation _____ feet / meters (circle one)

****Fill in additional site information on back of this page ****

Survey # Observer(s)	Date (m/d/y) Survey time	Number of WIFLs Found	Estimated Number of Pairs	Estimated Number of Territories	Nest(s) Found? Y or N	Cowbirds Detected? Y or N	Presence of Livestock, Recent sign Y or N	Comments about this survey (e.g., evidence of pairs or breeding, number of nests, nest contents or number of fledges seen; potential threats)
1 <u>CCB</u>	Date <u>06/20/01</u> Start <u>0615</u> Stop <u>0915</u> total hrs <u>3.0</u>	0	0	0	N	Y	N	
	Date Start Stop total hrs							
	Date Start Stop total hrs							
	Date Start Stop total hrs							
	Date Start Stop total hrs							
Overall Site Summary (Total only resident WIFLs)		Adults	Pairs	Territories	Nests	Were any WIFLs color-banded? Yes <input checked="" type="checkbox"/> No <input type="radio"/>		
Total survey hrs <u>3.0</u>		0	0	0	0	If yes, report color combination(s) in the comments section on back of form		

Name of Reporting Individual Hira A. Walker

Date Report Completed 08/31/01

Submit the original of this form. Retain a copy for your records.

Fill in the following information completely. Submit original form. Retain copy for your records.

Name of Reporting Individual Hira A. Walker Phone # 505-724-3680

Affiliation USDA Forest Service, Rocky Mountain Research Station Email hawalker@fs.fed.us

Site Name Middle 6

Did you verify that this site name is consistent with that used in previous years? Yes No (circle one)

Management Authority for Survey Area (circle one): Federal Municipal/County State Tribal Private

Name of Management Entity or Owner (e.g., Tonto National Forest) Middle Rio Grande Conservancy District

Length of area surveyed: 732m (specify units, e.g., miles = mi, kilometers = km, meters = m)

Did you survey the same general area during each visit to this site this year? Yes No If no, summarize in comments below.

If site was surveyed last year, did you survey the same general area this year? Yes / No If no, summarize in comments below.

Vegetation Characteristics: Overall, are the species in tree/shrub layer at this site comprised predominantly of (check one):

- Native broadleaf plants Mixed native and exotic plants (mostly native)
(entirely or almost entirely, includes high-elevation willow)
 Mixed native and exotic plants (mostly exotic) Exotic/introduced plants (entirely or almost entirely)

Identify the 2-3 predominant tree/shrub species: Coyote willow, Russian olive, saltcedar

Average height of canopy: 3m (specify units)

Was surface water or saturated soil present at or adjacent to site? Yes No (circle one)

Distance from the site to surface water or saturated soil: 0-150m (specify units)

Did hydrological conditions change significantly among visits (did the site flood or dry out)? Yes No (circle one)
If yes, describe in comments section below.

Remember to attach a Xerox copy of a USGS quad/topographical map (REQUIRED) of the survey area, noting the survey site and location of WFL detections. You may also include a sketch or aerial photograph showing details of site location, patch shape, survey route in relation to patch, and location of any willow flycatchers or willow flycatcher nests detected. Such sketches or photographs are welcomed, but DO NOT substitute for the required USGS quad map.

Comments (attach additional sheets if necessary):

This plot burned in March of 2000. The vegetation on this plot was very diverse. The dominate species were Russian olive, saltcedar, and coyote willow. In addition, a number of other species were present, including mulberry, young cottonwood, white sweet clover, and many other grasses and forbs. Also, burnt skeletons of cottonwood trees were present in the overstory. The entire plot area was surveyed.

Southwestern Willow Flycatcher Survey and Detection Form

Site Name South 1 Was site surveyed in previous year? Yes No
 If yes, what site name was used? South 1

County Socorro State NM USGS Quad Name _____

Is copy of USGS map marked with survey area and WIFL sightings attached (as required)? Yes No

Site Coordinates: Start: N 3815168 E 0334316 UTM
 Stop: N 3814137 E 0334423 UTM Zone _____

Elevation _____ feet / meters (circle one)

** Fill in additional site information on back of this page **

Survey # Observer(s)	Date (m/d/y) Survey time	Number of WIFLs Found	Estimated Number of Pairs	Estimated Number of Territories	Nest(s) Found? Y or N	Cowbirds Detected? Y or N	Presence of Livestock, Recent sign Y or N	Comments about this survey (e.g., evidence of pairs or breeding, number of nests, nest contents or number of fledges seen; potential threats)
1 <u>CCB</u>	Date 05/30/01 Start 0540 Stop 1000 total hrs <u>4.33</u>	0	0	0	N	Y	Y	Heard and saw 1 WIFL on west side of ditch (outside plot) at: N 3814807 E 0334364
2 <u>CDC</u>	Date 06/20/01 Start 0520 Stop 0820 total hrs <u>3.0</u>	0	0	0	N	Y (several)	Y (cows on plot at time of survey)	Started survey at the south end of the plot. Heard <i>whitting</i> north of plot.
3 <u>JTD</u>	Date 06/29/01 Start 0530 Stop 0815 total hrs <u>2.75</u>	0	0	0	N	Y	Y	Started survey at the north end of the plot.
4 <u>HAW</u>	Date 07/06/01 Start 0535 Stop 0705 total hrs <u>1.5</u>	0	0	0	N	Y (2 males)	Y (cows)	Started survey at the south end of the plot.
5 <u>CCB</u>	Date 07/16/01 Start 0530 Stop 0845 total hrs <u>3.25</u>	0	0	0	N	Y	Y	Started survey at the north end of the plot.
Overall Site Summary (Total only resident WIFLs) Total survey hrs <u>14.83</u>	Adults	Pairs	Territories	Nests	Were any WIFLs color-banded? Yes <input checked="" type="checkbox"/> No			
	0	0	0	0	If yes, report color combination(s) in the comments section on back of form			

Name of Reporting Individual Hira A. Walker Date Report Completed 08/31/01

Submit the original of this form. Retain a copy for your records.

Fill in the following information completely. Submit original form! Retain copy for your records.

Name of Reporting Individual Hira A. Walker Phone # 505-724-3680

Affiliation USDA Forest Service, Rocky Mountain Research Station Email hawalker@fs.fed.us

Site Name South 1

Did you verify that this site name is consistent with that used in previous years? Yes No (circle one)

Management Authority for Survey Area (circle one): Federal Municipal/County State Tribal Private

Name of Management Entity or Owner (e.g., Tonto National Forest) Middle Rio Grande Conservancy District

Length of area surveyed: 1037m (specify units, e.g., miles = mi, kilometers = km, meters = m)

Did you survey the same general area during each visit to this site this year? Yes No If no, summarize in comments below.

If site was surveyed last year, did you survey the same general area this year? Yes No If no, summarize in comments below.

Vegetation Characteristics: Overall, are the species in tree/shrub layer at this site comprised predominantly of (check one):

- Native broadleaf plants Mixed native and exotic plants (mostly native)
(entirely or almost entirely, includes high-elevation willow)
 Mixed native and exotic plants (mostly exotic) Exotic/introduced plants (entirely or almost entirely)

Identify the 2-3 predominant tree/shrub species: Cottonwood, Russian olive, saltcedar

Average height of canopy: 15m (specify units)

Was surface water or saturated soil present at or adjacent to site? Yes No (circle one)

Distance from the site to surface water or saturated soil: 0-150m (specify units)

Did hydrological conditions change significantly among visits (did the site flood or dry out)? Yes No (circle one)
If yes, describe in comments section below.

Remember to attach a Xerox copy of a USGS quad/topographical map (REQUIRED) of the survey area, noting the survey site and location of WIFL detections. You may also include a sketch or aerial photograph showing details of site location, patch shape, survey route in relation to patch, and location of any willow flycatchers or willow flycatcher nests detected. Such sketches or photographs are welcomed, but DO NOT substitute for the required USGS quad map.

Comments (attach additional sheets if necessary):

The interior of the plot was primarily surveyed last year. This year, the first survey was conducted over the entire plot.
Following surveys were conducted within 30m of the river, conveyance channels, and marshy areas where potential suitable Southwestern Willow Flycatcher habitat was found.

Southwestern Willow Flycatcher Survey and Detection Form

Site Name South 2

Was site surveyed in previous year? Yes No

If yes, what site name was used? South 2

County Socorro

State NM USGS Quad Name _____

Is copy of USGS map marked with survey area and WIFL sightings attached (as required)? Yes No

Site Coordinates: Start: N 3779173 E 0327040 UTM

Stop: N 3778007 E 0325595 UTM

Zone _____

Elevation _____ feet / meters (circle one)

**** Fill in additional site information on back of this page ****

Survey # Observer(s)	Date (m/d/y) Survey time	Number of WIFLs Found	Estimated Number of Pairs	Estimated Number of Territories	Nest(s) Found? Y or N	Cowbirds Detected? Y or N	Presence of Livestock, Recent sign Y or N	Comments about this survey (e.g., evidence of pairs or breeding, number of nests, nest contents or number of fledges seen; potential threats)
1 <u>JTD</u>	Date 05/30/01 Start 0515 Stop 1040 total hrs <u>5.42</u>	0	0	0	N	Y	Y	1 male detected moving around a lot, possibly with a large territory. Off of plot @: N 3778736 E 0326904
2 <u>CDC</u>	Date 06/15/01 Start 0525 Stop 0900 total hrs <u>3.58</u>	0	0	0	N	Y (lots!)	N	
3 <u>CCB</u>	Date 06/29/01 Start 0530 Stop 0800 total hrs <u>2.50</u>	0	0	0	N	Y	Y	Started survey at the north end of the plot.
4 <u>CDC</u>	Date 07/06/01 Start 0520 Stop 0820 total hrs <u>3.0</u>	0	0	0	N	Y (lots!)	Y	Started survey at the south end of the plot.
5 <u>CDC</u>	Date 07/16/01 Start 0515 Stop 0800 total hrs <u>2.75</u>	0	0	0	N	Y (several)	Y	Started survey at the north end of the plot.
Overall Site Summary (Total only resident WIFLs) Total survey hrs <u>17.25</u>	Adults	Pairs	Territories	Nests	Were any WIFLs color-banded? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>			
	0	0	0	0	If yes, report color combination(s) in the comments section on back of form			

Name of Reporting Individual Hira A. Walker

Date Report Completed 08/31/01

Submit the original of this form. Retain a copy for your records.

Fill in the following information completely. Submit original form. Retain copy for your records.

Name of Reporting Individual Hira A. Walker Phone # 505-724-3680

Affiliation USDA Forest Service, Rocky Mountain Research Station Email hawalker@fs.fed.us

Site Name South 2

Did you verify that this site name is consistent with that used in previous years? Yes No (circle one)

Management Authority for Survey Area (circle one): Federal Municipal/County State Tribal Private

Name of Management Entity or Owner (e.g., Tonto National Forest) Middle Rio Grande Conservancy District

Length of area surveyed: 1857m (specify units, e.g., miles = mi, kilometers = km, meters = m)

Did you survey the same general area during each visit to this site this year? Yes No If no, summarize in comments below.

If site was surveyed last year, did you survey the same general area this year? Yes No If no, summarize in comments below.

Vegetation Characteristics: Overall, are the species in tree/shrub layer at this site comprised predominantly of (check one):

Native broadleaf plants Mixed native and exotic plants (mostly native)

(entirely or almost entirely, includes high-elevation willow)

Mixed native and exotic plants (mostly exotic) Exotic/introduced plants (entirely or almost entirely)

Identify the 2-3 predominant tree/shrub species: Cottonwood, Russian olive, saltcedar

Average height of canopy: 15m (specify units)

Was surface water or saturated soil present at or adjacent to site? Yes No (circle one)

Distance from the site to surface water or saturated soil: 0-150m (specify units)

Did hydrological conditions change significantly among visits (did the site flood or dry out)? Yes No (circle one)
If yes, describe in comments section below.

Remember to attach a Xerox copy of a USGS quad/topographical map (REQUIRED) of the survey area, noting the survey site and location of WFL detections. You may also include a sketch or aerial photograph showing details of site location, patch shape, survey route in relation to patch, and location of any willow flycatchers or willow flycatcher nests detected. Such sketches or photographs are welcomed, but DO NOT substitute for the required USGS quad map.

Comments (attach additional sheets if necessary):

The interior of the plot was primarily surveyed last year. This year, the first survey was conducted over the entire plot.

Following surveys were conducted within 30m of the river, conveyance channels, and marshy areas where potential suitable Southwestern Willow Flycatcher habitat was found.

Southwestern Willow Flycatcher Survey and Detection Form

Site Name South 3 Was site surveyed in previous year? Yes No
 If yes, what site name was used? South 3

County Socorro State NM USGS Quad Name _____

Is copy of USGS map marked with survey area and WIFL sightings attached (as required)? Yes No
 Site Coordinates: Start: N 3748421 E 0328352 UTM
 Stop: N 3747443 E 0328793 UTM Zone _____
 Elevation _____ feet / meters (circle one)

** Fill in additional site information on back of this page **

Survey # Observer(s)	Date (m/d/y) Survey time	Number of WIFLs Found	Estimated Number of Pairs	Estimated Number of Territories	Nest(s) Found? Y or N	Cowbirds Detected? Y or N	Presence of Livestock, Recent sign Y or N	Comments about this survey (e.g., evidence of pairs or breeding, number of nests, nest contents or number of fledges seen; potential threats)
1 <u>SLL</u>	Date 05/30/01 Start 0545 Stop 0915 total hrs <u>3.50</u>	0	0	0	N	Y (few)	N	
2 <u>SLL</u>	Date 06/15/01 Start 0555 Stop 0825 total hrs <u>2.50</u>	0	0	0	N	Y (1 male, 1 female)	N	
3 <u>SLL</u>	Date 06/29/01 Start 0530 Stop 0730 total hrs <u>2.0</u>	0	0	0	N	Y (few)	N	Started survey at the north end of the plot.
4 <u>JTD</u>	Date 07/06/01 Start 0510 Stop 0815 total hrs <u>3.08</u>	0	0	0	N	Y (few)	Y	Started survey at the south end of the plot.
5 <u>SLL</u>	Date 07/16/01 Start 0520 Stop 0720 total hrs <u>2.0</u>	0	0	0	N	Y (5-6)	N	Started survey at the north end of the plot.
Overall Site Summary (Total only resident WIFLs)	Adults	Pairs	Territories	Nests	Were any WIFLs color-banded? Yes <input checked="" type="checkbox"/> No			
	0	0	0	0	If yes, report color combination(s) in the comments section on back of form			
Total survey hrs <u>13.08</u>								

Name of Reporting Individual Hira A. Walker Date Report Completed 08/31/01

Submit the original of this form. Retain a copy for your records.

Fill in the following information completely. Submit original form. Retain copy for your records.

Name of Reporting Individual Hira A. Walker Phone # 505-724-3680

Affiliation USDA Forest Service, Rocky Mountain Research Station Email hawalker@fs.fed.us

Site Name South 3

Did you verify that this site name is consistent with that used in previous years? Yes No (circle one)

Management Authority for Survey Area (circle one) Federal Municipal/County State Tribal Private

Name of Management Entity or Owner (e.g., Tonto National Forest) US Fish and Wildlife Service, Bosque del Apache NWR

Length of area surveyed: 1073m (specify units, e.g., miles = mi, kilometers = km, meters = m)

Did you survey the same general area during each visit to this site this year? Yes No If no, summarize in comments below.

If site was surveyed last year, did you survey the same general area this year? Yes No If no, summarize in comments below.

Vegetation Characteristics: Overall, are the species in tree/shrub layer at this site comprised predominantly of (check one):

- Native broadleaf plants Mixed native and exotic plants (mostly native)
(entirely or almost entirely, includes high-elevation willow)
 Mixed native and exotic plants (mostly exotic) Exotic/introduced plants (entirely or almost entirely)

Identify the 2-3 predominant tree/shrub species: Cottonwood, Russian olive, saltcedar

Average height of canopy: 15m (specify units)

Was surface water or saturated soil present at or adjacent to site? Yes No (circle one)

Distance from the site to surface water or saturated soil: 0-150m (specify units)

Did hydrological conditions change significantly among visits (did the site flood or dry out)? Yes No (circle one)
If yes, describe in comments section below.

Remember to attach a Xerox copy of a USGS quad/topographical map (REQUIRED) of the survey area, noting the survey site and location of WIFL detections. You may also include a sketch or aerial photograph showing details of site location, patch shape, survey route in relation to patch, and location of any willow flycatchers or willow flycatcher nests detected. Such sketches or photographs are welcomed, but DO NOT substitute for the required USGS quad map.

Comments (attach additional sheets if necessary):

The interior of the plot was primarily surveyed last year. This year, the last four surveys were conducted primarily along the eastern edge of the site, which is adjacent to the Low Flow Conveyance Channel that parallels the Rio Grande. This dry site was dominated by mature cottonwoods with a fairly open understory consisting mostly of saltcedar and some native components.

Southwestern Willow Flycatcher Survey and Detection Form

Site Name South 4

Was site surveyed in previous year? Yes No

If yes, what site name was used? South 4

County Socorro

State NM

USGS Quad Name _____

Is copy of USGS map marked with survey area and WIFL sightings attached (as required)? Yes No

Site Coordinates: Start: N 3742965 E 0327800 UTM

Stop: N 3741767 E 0327679 UTM Zone _____

Elevation _____ feet / meters (circle one)

**** Fill in additional site information on back of this page ****

Survey # Observer(s)	Date (m/d/y) Survey time	Number of WIFLs Found	Estimated Number of Pairs	Estimated Number of Territories	Nest(s) Found? Y or N	Cowbirds Detected? Y or N	Presence of Livestock, Recent sign Y or N	Comments about this survey (e.g., evidence of pairs or breeding, number of nests, nest contents or number of fledges seen; potential threats)
1 <u>CDC</u> _____	Date 05/30/01 Start 0620 Stop 0930 total hrs <u>3.17</u>	0	0	0	N	Y (few)	N	SE corner of plot not thoroughly covered due to time constraints.
2A <u>CCB</u> _____	Date 06/15/01 Start 0545 Stop 0845 total hrs <u>3.0</u>	0	0	0	N	Y	N	Surveyed everything but the NE corner.
2B <u>JTD</u> _____	Date 06/15/01 Start 0815 Stop 0845 total hrs <u>0.50</u>	0	0	0	N	Y	N	Surveyed only the NE corner.
3 <u>CDC</u> _____	Date 06/29/01 Start 0550 Stop 0920 total hrs <u>3.50</u>	0	0	0	N	Y (few)	N	Started survey on the south end of the plot.
4 <u>SLL</u> _____	Date 07/06/01 Start 0515 Stop 0745 total hrs <u>2.50</u>	0	0	0	N	Y	N	Started survey on the north end of the plot.

Name of Reporting Individual Hira A. Walker

Date Report Completed 08/31/01

Submit the original of this form. Retain a copy for your records.

Site Name South 4

Survey # Observer(s)	Date (m/d/y) Survey time	Number of WIFLs Found	Estimated Number of Pairs	Estimated Number of Territories	Nest(s) Found? Y or N	Cowbirds Detected? Y or N	Presence of Livestock, Recent sign Y or N	Comments about this survey (e.g., evidence of pairs or breeding, number of nests, nest contents or number of fledglings seen; potential threats)
5 <u>JTD</u>	Date 07/16/01 Start 0530 Stop 0815 total hrs <u>2.75</u>	0	0	0	N	Y	N	Started survey at the south end of the plot.
	Date _____ Start _____ Stop _____ total hrs _____							
	Date _____ Start _____ Stop _____ total hrs _____							
	Date _____ Start _____ Stop _____ total hrs _____							
	Date _____ Start _____ Stop _____ total hrs _____							
Overall Site Summary (Total only resident WIFLs)	Adults	Pairs	Territories	Nests	Were any WIFLs color-banded? Yes <input checked="" type="radio"/> No If yes, report color combination(s) in the comments section on back of form			
Total survey hrs <u>15.42</u>	0	0	0	0				

Name of Reporting Individual Hira A. WalkerDate Report Completed 08/31/01*Submit the original of this form. Retain a copy for your records.*

Fill in the following information completely. Submit original form. Retain copy for your records.

Name of Reporting Individual Hira A. Walker Phone # 505-724-3680

Affiliation USDA Forest Service, Rocky Mountain Research Station Email hawalker@fs.fed.us

Site Name South 4

Did you verify that this site name is consistent with that used in previous years? Yes No (circle one)

Management Authority for Survey Area (circle one) Federal Municipal/County State Tribal Private

Name of Management Entity or Owner (e.g., Tonto National Forest) US Fish and Wildlife Service, Bosque del Apache NWR

Length of area surveyed: 1204m (specify units, e.g., miles = mi, kilometers = km, meters = m)

Did you survey the same general area during each visit to this site this year? Yes No If no, summarize in comments below.

If site was surveyed last year, did you survey the same general area this year? Yes No If no, summarize in comments below.

Vegetation Characteristics: Overall, are the species in tree/shrub layer at this site comprised predominantly of (check one):

- Native broadleaf plants Mixed native and exotic plants (mostly native)
(entirely or almost entirely, includes high-elevation willow)
 Mixed native and exotic plants (mostly exotic) Exotic/introduced plants (entirely or almost entirely)

Identify the 2-3 predominant tree/shrub species: Cottonwood, Russian olive, saltcedar

Average height of canopy: 15m (specify units)

Was surface water or saturated soil present at or adjacent to site? Yes No (circle one)

Distance from the site to surface water or saturated soil: 0-150m (specify units)

Did hydrological conditions change significantly among visits (did the site flood or dry out)? Yes No (circle one)
If yes, describe in comments section below.

Remember to attach a Xerox copy of a USGS quad/topographical map (REQUIRED) of the survey area, noting the survey site and location of WIFL detections. You may also include a sketch or aerial photograph showing details of site location, patch shape, survey route in relation to patch, and location of any willow flycatchers or willow flycatcher nests detected. Such sketches or photographs are welcomed, but DO NOT substitute for the required USGS quad map.

Comments (attach additional sheets if necessary):

The interior of the plot was primarily surveyed last year. This year, the last four surveys were conducted primarily along the eastern edge of the site, which is adjacent to the Low Flow Conveyance Channel, paralleling the Rio Grande. Marshy areas on the site were also surveyed. The site was mostly dry, but some marshy areas existed in the southwestern portion of the site near the channel. Mature cottonwoods stood over an understory of mostly saltcedar and some native components, including screwbean mesquite, New Mexico olive, coyote willow, and seep willow. There was a thick stand of saltcedar on the site, located a distance away from the channel.

Southwestern Willow Flycatcher Survey and Detection Form

Site Name South 5 Was site surveyed in previous year? Yes No
If yes, what site name was used? South 5

County Socorro State NM USGS Quad Name _____

Is copy of USGS map marked with survey area and WIFL sightings attached (as required)? Yes No

Site Coordinates: Start: N 3746698 E 0328988 UTM
Stop: N 3745616 E 0328692 UTM Zone _____

Elevation _____ feet / meters (circle one)

**** Fill in additional site information on back of this page ****

Survey # Observer(s)	Date (m/d/y) Survey time	Number of WIFLs Found	Estimated Number of Pairs	Estimated Number of Territories	Nest(s) Found? Y or N	Cowbirds Detected? Y or N	Presence of Livestock, Recent sign Y or N	Comments about this survey (e.g., evidence of pairs or breeding, number of nests, nest contents or number of fledges seen; potential threats)
1A <u>JTD</u>	Date 06/15/01 Start 0520 Stop 0750 total hrs <u>2.50</u>	0	0	0	N	Y	Y	
1B <u>HAW</u>	Date 06/15/01 Start 0710 Stop 0750 total hrs <u>0.67</u>	0	0	0	N	Y	Y	
	Date Start Stop total hrs							
	Date Start Stop total hrs							
	Date Start Stop total hrs							
Overall Site Summary (Total only resident WIFLs)	Adults	Pairs	Territories	Nests	Were any WIFLs color-banded? Yes <input checked="" type="checkbox"/> No			
	0	0	0	0	If yes, report color combination(s) in the comments section on back of form			
Total survey hrs <u>3.17</u>								

Name of Reporting Individual Hira A. Walker Date Report Completed 08/31/01

Submit the original of this form. Retain a copy for your records.

Fill in the following information completely. Submit original form. Retain copy for your records.

Name of Reporting Individual Hira A. Walker Phone # 505-724-3680

Affiliation USDA Forest Service, Rocky Mountain Research Station Email hawalker@fs.fed.us

Site Name South 5

Did you verify that this site name is consistent with that used in previous years? Yes No (circle one)

Management Authority for Survey Area (circle one) Federal Municipal/County State Tribal Private

Name of Management Entity or Owner (e.g., Tonto National Forest) US Fish and Wildlife Service: Bosque del Apache NWR

Length of area surveyed: 1122m (specify units, e.g., miles = mi, kilometers = km, meters = m)

Did you survey the same general area during each visit to this site this year? Yes No If no, summarize in comments below.

If site was surveyed last year, did you survey the same general area this year? Yes No If no, summarize in comments below.

Vegetation Characteristics: Overall, are the species in tree/shrub layer at this site comprised predominantly of (check one):

- Native broadleaf plants Mixed native and exotic plants (mostly native)
(entirely or almost entirely, includes high-elevation willow)
 Mixed native and exotic plants (mostly exotic) Exotic/introduced plants (entirely or almost entirely)

Identify the 2-3 predominant tree/shrub species: Goodding willow, saltcedar, coyote willow

Average height of canopy: 3m (specify units)

Was surface water or saturated soil present at or adjacent to site? Yes No (circle one)

Distance from the site to surface water or saturated soil: 0-150m (specify units)

Did hydrological conditions change significantly among visits (did the site flood or dry out)? Yes No (circle one)
If yes, describe in comments section below.

Remember to attach a Xerox copy of a USGS quad/topographical map (REQUIRED) of the survey area, noting the survey site and location of WIFL detections. You may also include a sketch or aerial photograph showing details of site location, patch shape, survey route in relation to patch, and location of any willow flycatchers or willow flycatcher nests detected. Such sketches or photographs are welcomed, but DO NOT substitute for the required USGS quad map.

Comments (attach additional sheets if necessary):

This plot burned in the late spring of 1996. Although cottonwoods were abundant, they were all dead, leaving a diverse, short shrubby canopy. The entire plot area was surveyed.

Fill in the following information completely. Submit original form. Retain copy for your records.

Name of Reporting Individual Hira A. Walker Phone # 505-724-3680

Affiliation USDA Forest Service, Rocky Mountain Research Station Email hawalker@fs.fed.us

Site Name South 6

Did you verify that this site name is consistent with that used in previous years? Yes No (circle one)

Management Authority for Survey Area (circle one) Federal Municipal/County State Tribal Private

Name of Management Entity or Owner (e.g., Tonto National Forest) US Fish and Wildlife Service, Bosque del Apache NWR

Length of area surveyed: 199.6m (specify units, e.g., miles = mi, kilometers = km, meters = m)

Did you survey the same general area during each visit to this site this year? Yes / No If no, summarize in comments below.

If site was surveyed last year, did you survey the same general area this year? Yes / No If no, summarize in comments below.

Vegetation Characteristics: Overall, are the species in tree/shrub layer at this site comprised predominantly of (check one):

- Native broadleaf plants Mixed native and exotic pants (mostly native)
 (entirely or almost entirely, includes high-elevation willow)
 Mixed native and exotic plants (mostly exotic) Exotic/introduced plants (entirely or almost entirely)

Identify the 2-3 predominant tree/shrub species: Young cottonwood, coyote willow, saltcedar

Average height of canopy: 3m (specify units)

Was surface water or saturated soil present at or adjacent to site? Yes No (circle one)

Distance from the site to surface water or saturated soil: 0-150m (specify units)

Did hydrological conditions change significantly among visits (did the site flood or dry out)? Yes No (circle one)
If yes, describe in comments section below.

Remember to attach a Xerox copy of a USGS quad/topographical map (REQUIRED) of the survey area, noting the survey site and location of WIFL detections. You may also include a sketch or aerial photograph showing details of site location, patch shape, survey route in relation to patch, and location of any willow flycatchers or willow flycatcher nests detected. Such sketches or photographs are welcomed, but DO NOT substitute for the required USGS quad map.

Comments (attach additional sheets if necessary):

This plot burned in the late spring of 1996. Although cottonwoods were abundant, they were all dead or very young, leaving a low shrubby canopy of coyote willow, saltcedar, and seep willow.

Southwestern Willow Flycatcher Survey and Detection Form

Site Name South 6 Was site surveyed in previous year? Yes No

If yes, what site name was used? South 6

County Socorro State NM USGS Quad Name _____

Is copy of USGS map marked with survey area and WIFL sightings attached (as required)? Yes No

Site Coordinates: Start: N 3745165 E 0328187 UTM
Stop: N 3744977 E 0328120 UTM Zone _____

Elevation _____ feet / meters (circle one)

**** Fill in additional site information on back of this page ****

Survey # Observer(s)	Date (m/d/y) Survey time	Number of WIFLs Found	Estimated Number of Pairs	Estimated Number of Territories	Nest(s) Found? Y or N	Cowbirds Detected? Y or N	Presence of Livestock, Recent sign Y or N	Comments about this survey (e.g., evidence of pairs or breeding, number of nests, nest contents or number of fledges seen; potential threats)
<u>1</u> <u>HAW</u>	Date 06/15/01 Start 0555 Stop 0625 total hrs <u>0.5</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>N</u>	<u>Y</u> (2 males)	<u>N</u>	
	Date Start Stop total hrs							
	Date Start Stop total hrs							
	Date Start Stop total hrs							
	Date Start Stop total hrs							
Overall Site Summary (Total only resident WIFLs)		Adults	Pairs	Territories	Nests	Were any WIFLs color-banded? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
		<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	If yes, report color combination(s) in the comments section on back of form		
Total survey hrs <u>0.5</u>								

Name of Reporting Individual Hira A. Walker Date Report Completed 08/31/01

Submit the original of this form. Retain a copy for your records.

Site Name Middle 1

Survey # Observer(s)	Date (m/d/y) Survey time	Number of WIFLs Found	Estimated Number of Pairs	Estimated Number of Territories	Nest(s) Found? Y or N	Cowbirds Detected? Y or N	Presence of Livestock, Recent sign Y or N	Comments about this survey (e.g., evidence of pairs or breeding, number of nests, nest contents or number of fledges seen; potential threats)
5 <u>SLL</u>	Date 07/12/01 Start 0530 Stop 0800 total hrs <u>2.50</u>	0	0	0	N	Y (8-10)	Y (horses)	Started survey at the south end of the plot.
	Date _____ Start _____ Stop _____ total hrs _____							
	Date _____ Start _____ Stop _____ total hrs _____							
	Date _____ Start _____ Stop _____ total hrs _____							
	Date _____ Start _____ Stop _____ total hrs _____							
Overall Site Summary (Total only resident WIFLs) Total survey hrs <u>16.17</u>		Adults	Pairs	Territories	Nests	Were any WIFLs color-banded? Yes <input checked="" type="radio"/> No <input type="radio"/>		
		1	0	0	0	If yes, report color combination(s) in the comments section on back of form		

Name of Reporting Individual Hira A. WalkerDate Report Completed 08/31/01*Submit the original of this form. Retain a copy for your records.**Never mail a copy of this form to anyone other than the person to whom it was given.*

Southwestern Willow Flycatcher Survey and Detection Form

Site Name Middle 1 Was site surveyed in previous year? Yes No

If yes, what site name was used? Middle 1

County Valencia State NM USGS Quad Name _____

Is copy of USGS map marked with survey area and WIFL sightings attached (as required)? Yes No

Site Coordinates: Start: N 3857403 E 0343179 UTM
Stop: N 3856548 E 0343327 UTM Zone _____

Elevation _____ feet / meters (circle one)

**** Fill in additional site information on back of this page ****

Survey # Observer(s)	Date (m/d/y) Survey time	Number of WIFLs Found	Estimated Number of Pairs	Estimated Number of Territories	Nest(s) Found? Y or N	Cowbirds Detected? Y or N	Presence of Livestock, Recent sign Y or N	Comments about this survey (e.g., evidence of pairs or breeding, number of nests, nest contents or number of fledges seen; potential threats)
1 <u>SLL</u>	Date 05/25/01 Start 0600 Stop 0945 total hrs <u>3.75</u>	0	0	0	N	Y	Y	Started survey at south end of plot.
2 <u>JTD</u>	Date 06/04/01 Start 0515 Stop 1015 total hrs <u>5.0</u>	1	0	0	N	Y	N	(01) N 3857391 E 0343188
Nest Search <u>CDC</u> <u>CCB</u>	Date 06/07/01 Start 0840 Stop 0920 total hrs <u>0.67</u>	0	0	0	N	Y (few)	Y	Entire time was spent at above location. No WIFLs detected.
3 <u>CDC</u>	Date 06/26/01 Start 0600 Stop 0815 total hrs <u>2.25</u>	0	0	0	N	Y (very few)	Y (horses only)	Started survey on south end of plot.
4 <u>JTD</u>	Date 07/02/01 Start 0530 Stop 0730 total hrs <u>2.0</u>	0	0	0	N	Y	N	Started survey on north end of plot.

Name of Reporting Individual Hira A. Walker Date Report Completed 08/31/01

Submit the original of this form. Retain a copy for your records.

Fill in the following information completely. Submit original form. Retain copy for your records.

Name of Reporting Individual Hira A. Walker Phone # 505-724-3680

Affiliation USDA Forest Service, Rocky Mountain Research Station Email hawalker@fs.fed.us

Site Name North 4

Did you verify that this site name is consistent with that used in previous years? Yes No (circle one)

Management Authority for Survey Area (circle one): Federal Municipal/County State Tribal Private

Name of Management Entity or Owner (e.g., Tonto National Forest) Albuquerque, MRGCD, NMSP

Length of area surveyed: 1286m (specify units, e.g., miles = mi, kilometers = km, meters = m)

Did you survey the same general area during each visit to this site this year? Yes / No If no, summarize in comments below.

If site was surveyed last year, did you survey the same general area this year? Yes / No If no, summarize in comments below.

Vegetation Characteristics: Overall, are the species in tree/shrub layer at this site comprised predominantly of (check one):

Native broadleaf plants Mixed native and exotic plants (mostly native)
(entirely or almost entirely, includes high-elevation willow)

Mixed native and exotic plants (mostly exotic) Exotic/introduced plants (entirely or almost entirely)

Identify the 2-3 predominant tree/shrub species: Cottonwood, Russian olive, saltcedar

Average height of canopy: 15m (specify units)

Was surface water or saturated soil present at or adjacent to site? Yes No (circle one)

Distance from the site to surface water or saturated soil: 0-150m (specify units)

Did hydrological conditions change significantly among visits (did the site flood or dry out)? Yes No (circle one)
If yes, describe in comments section below.

Remember to attach a Xerox copy of a USGS quad/topographical map (REQUIRED) of the survey area, noting the survey site and location of WIFL detections. You may also include a sketch or aerial photograph showing details of site location, patch shape, survey route in relation to patch, and location of any willow flycatchers or willow flycatcher nests detected. Such sketches or photographs are welcomed, but DO NOT substitute for the required USGS quad map.

Comments (attach additional sheets if necessary):

The first survey was conducted over the entire plot. Following surveys were conducted within 30m of the river because potentially suitable habitat for Southwestern Willow Flycatchers was found in this area. The majority of the understory of this plot consisted of dry wood. The previous year, surveys were conducted in the interior of the plot in the cottonwood gallery forest.

Southwestern Willow Flycatcher Survey and Detection Form

Site Name North 4 Was site surveyed in previous year? Yes No
If yes, what site name was used? North 4

County Bernalillo State NM USGS Quad Name _____

Is copy of USGS map marked with survey area and WIFL sightings attached (as required)? Yes No

Site Coordinates: Start: N 3874604 E 0346601 UTM
Stop: N 3873335 E 0346393 UTM Zone _____

Elevation _____ feet / meters (circle one)

**** Fill in additional site information on back of this page ****

Survey # Observer(s)	Date (m/d/y) Survey time	Number of WIFLs Found	Estimated Number of Pairs	Estimated Number of Territories	Nest(s) Found? Y or N	Cowbirds Detected? Y or N	Presence of Livestock, Recent sign Y or N	Comments about this survey (e.g., evidence of pairs or breeding, number of nests, nest contents or number of fledges seen; potential threats)
1 <u>CDC</u>	Date 05/23/01 Start 0614 Stop 0955 total hrs <u>3.68</u>	0	0	0	N	Y (10)	Y	
2 <u>CCB</u>	Date 06/01/01 Start 0545 Stop 0930 total hrs <u>3.75</u>	0	0	0	N	Y	Y	1 WIFL found ~20m from west edge of plot (between plot edge and river) N 3873776 E 0346148
3 <u>CDC</u>	Date 06/22/01 Start 0545 Stop 0830 total hrs <u>2.75</u>	0	0	0	N	Y (few)	N	Started survey at the north end of plot.
4 <u>CDC</u>	Date 07/03/01 Start 0600 Stop 0900 total hrs <u>3.00</u>	0	0	0	N	Y (few)	N	Started survey at the south end of plot.
5 <u>SLL</u>	Date 07/11/01 Start 0550 Stop 0750 total hrs <u>2.00</u>	0	0	0	N	Y (1-2)	N	Started survey at the north end of plot.
Overall Site Summary (Total only resident WIFLs)		Adults	Pairs	Territories	Nests	Were any WIFLs color-banded? <input checked="" type="radio"/> Yes <input type="radio"/>		
Total survey hrs <u>15.18</u>		0	0	0	0	If yes, report color combination(s) in the comments section on back of form		

Name of Reporting Individual Hira A. Walker

Date Report Completed 08/31/01

Submit the original of this form. Retain a copy for your records.

Fill in the following information completely. Submit original form. Retain copy for your records.

Name of Reporting Individual Hira A. Walker Phone # 505-724-3680

Affiliation USDA Forest Service, Rocky Mountain Research Station Email hawalker@fs.fed.us

Site Name North 3

Did you verify that this site name is consistent with that used in previous years? Yes No (circle one)

Management Authority for Survey Area (circle one): Federal Municipal/County State Tribal Private

Name of Management Entity or Owner (e.g., Tonto National Forest) Albuquerque, MRGCD, NMSP

Length of area surveyed: 970m (specify units, e.g., miles = mi, kilometers = km, meters = m)

Did you survey the same general area during each visit to this site this year? Yes No If no, summarize in comments below.

If site was surveyed last year, did you survey the same general area this year? Yes No If no, summarize in comments below.

Vegetation Characteristics: Overall, are the species in tree/shrub layer at this site comprised predominantly of (check one):

Native broadleaf plants Mixed native and exotic plants (mostly native)

(entirely or almost entirely, includes high-elevation willow)

Mixed native and exotic plants (mostly exotic) Exotic/introduced plants (entirely or almost entirely)

Identify the 2-3 predominant tree/shrub species: Cottonwood, Russian olive, saltcedar

Average height of canopy: 15m (specify units)

Was surface water or saturated soil present at or adjacent to site? Yes No (circle one)

Distance from the site to surface water or saturated soil: 0-150m (specify units)

Did hydrological conditions change significantly among visits (did the site flood or dry out)? Yes No (circle one)
If yes, describe in comments section below.

Remember to attach a Xerox copy of a USGS quad/topographical map (REQUIRED) of the survey area, noting the survey site and location of WIFL detections. You may also include a sketch or aerial photograph showing details of site location, patch shape, survey route in relation to patch, and location of any willow flycatchers or willow flycatcher nests detected. Such sketches or photographs are welcomed, but DO NOT substitute for the required USGS quad map.

Comments (attach additional sheets if necessary):

The first survey was conducted over the entire plot. Following surveys were conducted within 30m of the river because potentially suitable habitat for Southwestern Willow Flycatchers was found in this area. The majority of the understory of this plot consisted of dry wood. The previous year, surveys were conducted in the interior of the cottonwood gallery forest.

Southwestern Willow Flycatcher Survey and Detection Form

Site Name North 3 Was site surveyed in previous year? Yes No
If yes, what site name was used? North 3

County Bernalillo State NM USGS Quad Name _____

Is copy of USGS map marked with survey area and WIFL sightings attached (as required)? Yes No

Site Coordinates: Start: N 3869688 E 0346019 UTM
Stop: N 3868788 E 0346382 UTM Zone _____

Elevation _____ feet / meters (circle one)

**** Fill in additional site information on back of this page ****

Survey # Observer(s)	Date (m/d/y) Survey time	Number of WIFLs Found	Estimated Number of Pairs	Estimated Number of Territories	Nest(s) Found? Y or N	Cowbirds Detected? Y or N	Presence of Livestock, Recent sign Y or N	Comments about this survey (e.g., evidence of pairs or breeding, number of nests, nest contents or number of fledges seen; potential threats)
1 <u>SLL</u> <u>HAW</u>	Date 05/23/01 Start 0533 Stop 0955 total hrs 4.37	0	0	0	N 	Y (3)	N	
2 <u>CDC</u>	Date 06/01/01 Start 0520 Stop 0820 total hrs 3.00	0	0	0	N	Y (many)	Y	
3 <u>CCB</u>	Date 06/22/01 Start 0530 Stop 0900 total hrs 3.50	0	0	0	N	Y	N	Started survey at the north end of plot.
4 <u>SLL</u>	Date 07/03/01 Start 0545 Stop 0845 total hrs 3.00	0	0	0	N	Y (1-2)	N	Started survey at the south end of plot.
5 <u>CCB</u>	Date 07/11/01 Start 0515 Stop 0815 total hrs 3.00	0	0	0	N	Y	N	Started survey at the north end of plot.
Overall Site Summary (Total only resident WIFLs)		Adults	Pairs	Territories	Nests	Were any WIFLs color-banded? Yes <input checked="" type="checkbox"/> No		
Total survey hrs <u>16.87</u>		0	0	0	0	If yes, report color combination(s) in the comments section on back of form		

Name of Reporting Individual Hira A. Walker Date Report Completed 08/31/01

Submit the original of this form. Retain a copy for your records.

Fill in the following information completely. Submit original form. Retain copy for your records.

Name of Reporting Individual Hira A. Walker Phone # 505-724-3680

Affiliation USDA Forest Service, Rocky Mountain Research Station Email hawalker@fs.fed.us

Site Name North 2

Did you verify that this site name is consistent with that used in previous years? Yes No (circle one)

Management Authority for Survey Area (circle one): Federal Municipal/County State Tribal Private

Name of Management Entity or Owner (e.g., Tonto National Forest) Albuquerque, MRGCD, NMSP

Length of area surveyed: 1259m (specify units, e.g., miles = mi, kilometers = km, meters = m)

Did you survey the same general area during each visit to this site this year? Yes / No If no, summarize in comments below.

If site was surveyed last year, did you survey the same general area this year? Yes / No If no, summarize in comments below.

Vegetation Characteristics: Overall, are the species in tree/shrub layer at this site comprised predominantly of (check one):

- Native broadleaf plants Mixed native and exotic plants (mostly native)
(entirely or almost entirely, includes high-elevation willow)
 Mixed native and exotic plants (mostly exotic) Exotic/introduced plants (entirely or almost entirely)

Identify the 2-3 predominant tree/shrub species: Cottonwood, Russian olive, saltcedar

Average height of canopy: 15m (specify units)

Was surface water or saturated soil present at or adjacent to site? Yes No (circle one)

Distance from the site to surface water or saturated soil: 0-150m (specify units)

Did hydrological conditions change significantly among visits (did the site flood or dry out)? Yes No (circle one)
If yes, describe in comments section below.

Remember to attach a Xerox copy of a USGS quad/topographical map (REQUIRED) of the survey area, noting the survey site and location of WIFL detections. You may also include a sketch or aerial photograph showing details of site location, patch shape, survey route in relation to patch, and location of any willow flycatchers or willow flycatcher nests detected. Such sketches or photographs are welcomed, but DO NOT substitute for the required USGS quad map.

Comments (attach additional sheets if necessary):

The first survey was conducted over the entire plot. Following surveys were conducted within 30m of the river where potentially suitable habitat for Southwestern Willow Flycatchers was found. Clumps of coyote willow and Russian olive were located in this area along the river. In the previous year, surveys were conducted in the interior of the plot in the cottonwood gallery forest.

Site Name North 2

Survey # Observer(s)	Date (m/d/y) Survey time	Number of WIFLs Found	Estimated Number of Pairs	Estimated Number of Territories	Nest(s) Found? Y or N	Cowbirds Detected? Y or N	Presence of Livestock, Recent sign Y or N	Comments about this survey (e.g., evidence of pairs or breeding, number of nests, nest contents or number of fledges seen; potential threats)
<u>5</u> <u>JTD</u>	Date 07/11/01 Start 0515 Stop 0830 total hrs <u>3.25</u>	0	0	0	N	Y (4)	N	Started survey at the north end of the plot.
	Date _____ Start _____ Stop _____ total hrs							
	Date _____ Start _____ Stop _____ total hrs							
	Date _____ Start _____ Stop _____ total hrs _____							
	Date _____ Start _____ Stop _____ total hrs _____							
Overall Site Summary (Total only resident WIFLs)		Adults	Pairs	Territories	Nests	Were any WIFLs color-banded? Yes <input checked="" type="radio"/> No		
Total survey hrs <u>18.75</u>		0	0	0	0	If yes, report color combination(s) in the comments section on back of form		

Name of Reporting Individual Hira A. Walker Date Report Completed 08/31/01

Submit the original of this form. Retain a copy for your records.

Sign here to indicate that you have read and understood this document.

Southwestern Willow Flycatcher Survey and Detection Form

Site Name North 2

If yes, what site name was used? North 2

Was site surveyed in previous year? Yes No

County Bernalillo

State NM

USGS Quad Name _____

Is copy of USGS map marked with survey area and WIFL sightings attached (as required)? Yes No

Site Coordinates: Start: N 3873550 E 0345925 UTM

Stop: N 3872303 E 0345755 UTM Zone _____

Elevation _____ feet / meters (circle one)

**** Fill in additional site information on back of this page ****

Survey # Observer(s)	Date (m/d/y) Survey time	Number of WIFLs Found	Estimated Number of Pairs	Estimated Number of Territories	Nest(s) Found? Y or N	Cowbirds Detected? Y or N	Presence of Livestock, Recent sign Y or N	Comments about this survey (e.g., evidence of pairs or breeding, number of nests, nest contents or number of fledges seen; potential threats)
1 <u>CCB</u>	Date 05/23/01 Start 0530 Stop 0945 total hrs <u>4.25</u>	0	0	0	N	Y	Y	
2 <u>JTD</u>	Date 06/01/01 Start 0530 Stop 0930 total hrs <u>4.0</u>	0	0	0	N	Y	N	1 possible WIFL britting and whitting, but no fitz-bew was heard.
Nest Search <u>SLL</u> <u>JTD</u>	Date 06/07/01 Start 0930 Stop 1000 total hrs <u>0.50</u>	0	0	0	N	Y (very few)	N	Went to check on possible WIFL from previous survey.
3 <u>CDC</u>	Date 06/22/01 Start 0530 Stop 0915 total hrs <u>3.75</u>	0	0	0	N	Y (several)	N	Started survey at the north end of the plot.
4 <u>CCB</u>	Date 07/03/01 Start 0545 Stop 0845 total hrs <u>3.0</u>	0	0	0	N	Y	N	Started survey at the south end of the plot.

Name of Reporting Individual Hira A. Walker

Date Report Completed 08/31/01

Submit the original of this form. Retain a copy for your records.

Fill in the following information completely. Submit original form. Retain copy for your records.

Name of Reporting Individual Hira A. Walker Phone # 505-724-3680

Affiliation USDA Forest Service, Rocky Mountain Research Station Email hawalker@fs.fed.us

Site Name North 1

Did you verify that this site name is consistent with that used in previous years? Yes No (circle one)

Management Authority for Survey Area (circle one): Federal Municipal/County State Tribal Private

Name of Management Entity or Owner (e.g., Tonto National Forest) Albuquerque, MRGCD, NMSP

Length of area surveyed: 1453m (specify units, e.g., miles = mi, kilometers = km, meters = m)

Did you survey the same general area during each visit to this site this year? Yes / No If no, summarize in comments below.

If site was surveyed last year, did you survey the same general area this year? Yes No If no, summarize in comments below.

Vegetation Characteristics: Overall, are the species in tree/shrub layer at this site comprised predominantly of (check one):

- Native broadleaf plants Mixed native and exotic plants (mostly native)
(entirely or almost entirely, includes high-elevation willow)
 Mixed native and exotic plants (mostly exotic) Exotic/introduced plants (entirely or almost entirely)

Identify the 2-3 predominant tree/shrub species: Cottonwood, Russian olive, saltcedar

Average height of canopy: 15m (specify units)

Was surface water or saturated soil present at or adjacent to site? Yes No (circle one)

Distance from the site to surface water or saturated soil: 0-150m (specify units)

Did hydrological conditions change significantly among visits (did the site flood or dry out)? Yes No (circle one)
If yes, describe in comments section below.

Remember to attach a Xerox copy of a USGS quad/topographical map (REQUIRED) of the survey area, noting the survey site and location of WIFL detections. You may also include a sketch or aerial photograph showing details of site location, patch shape, survey route in relation to patch, and location of any willow flycatchers or willow flycatcher nests detected. Such sketches or photographs are welcomed, but DO NOT substitute for the required USGS quad map.

Comments (attach additional sheets if necessary):

The first survey was conducted over the entire plot. Following surveys were conducted within 30m of the river because potentially suitable habitat for Southwestern Willow Flycatcher was found in the area. Along the river large stands of coyote willow and clumps of boxelder and Russian olive dominate. The area further away from the river consisted of a cottonwood overstory and an almost entirely dead understory. In the previous year, surveys were conducted in the interior of the plot in the cottonwood gallery forest.

Site Name North 1

Survey # Observer(s)	Date (m/d/y) Survey time	Number of WIFLs Found	Estimated Number of Pairs	Estimated Number of Territories	Nest(s) Found? Y or N	Cowbirds Detected? Y or N	Presence of Livestock, Recent sign Y or N	Comments about this survey. (e.g., evidence of pairs or breeding, number of nests, nest contents or number of fledges seen; potential threats)
3 <u>SLL</u>	Date 06/22/01 Start 0520 Stop 0850 total hrs <u>3.50</u>	0	0	0	N	Y (7-10)	Y (horses)	Started survey at the north end of the plot.
4 <u>JTD</u>	Date 07/03/01 Start 0530 Stop 0900 total hrs <u>3.50</u>	0	0	0	N	Y	N	Started survey at the south end of the plot.
5 <u>CDC</u>	Date 07/11/01 Start 0530 Stop 0830 total hrs <u>3.00</u>	0	0	0	N	Y (1-2)	Y	Started survey at the north end of the plot.
	Date _____ Start _____ Stop _____ total hrs _____							
	Date _____ Start _____ Stop _____ total hrs _____							
Overall Site Summary (Total only resident WIFLs)		Adults	Pairs	Territories	Nests	Were any WIFLs color-banded? Yes <input checked="" type="radio"/> No		
Total survey hrs <u>22.70</u>		2	0	0	0	If yes, report color combination(s) in the comments section on back of form		

Name of Reporting Individual Hira A. WalkerDate Report Completed 08/31/01*Submit the original of this form. Retain a copy for your records.*

Southwestern Willow Flycatcher Survey and Detection Form

Site Name North 1

Was site surveyed in previous year Yes No

If yes, what site name was used? North 1

County Bernalillo

State NM

USGS Quad Name _____

Is copy of USGS map marked with survey area and WIFL sightings attached (as required)? Yes No

Site Coordinates: Start: N 3875525 E 0346884 UTM

Stop: N 3874399 E 0345966 UTM Zone _____

Elevation _____ feet / meters (circle one)

**** Fill in additional site information on back of this page ****

Survey # Observer(s)	Date (m/d/y) Survey time	Number of WIFLs Found	Estimated Number of Pairs	Estimated Number of Territories	Nest(s) Found? Y or N	Cowbirds Detected? Y or N	Presence of Livestock, Recent sign Y or N	Comments about this survey (e.g., evidence of pairs or breeding, number of nests, nest contents or number of fledges seen; potential threats)
<u>1</u> <u>JTD</u>	Date <u>05/23/01</u> Start <u>0533</u> Stop <u>0945</u> total hrs <u>4.20</u>	<u>1</u>	<u>0</u>	<u>0</u>	<u>N</u>	<u>N</u>	<u>N</u>	<u>N 3875599</u> <u>E 0346844</u> <u>Possible WIFL females also</u> <u>seen during survey.</u>
Nest Search <u>JTD, HAW,</u> <u>CDC, CCB, SLL</u>	Date <u>05/31/01</u> Start <u>1040</u> Stop <u>1100</u> total hrs <u>0.33</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>N</u>	<u>Y</u>	<u>N</u>	We revisited previous sightings to check for mating activity. No WIFL's were detected.
<u>2</u> <u>SLL</u>	Date <u>06/01/01</u> Start <u>0510</u> Stop <u>0920</u> total hrs <u>4.17</u>	<u>2</u>	<u>0</u>	<u>0</u>	<u>N</u>	<u>Y</u> (very few)	<u>Y</u>	(01) <u>N 3874932</u> <u>E 0346344</u> (02) <u>N 3875608</u> <u>E 0346829</u> – The same location as the WIFL detected on 05/23/01
Nest Search <u>SLL, JTD,</u> <u>CCB, CDC</u>	Date <u>06/01/01</u> Start <u>1030</u> Stop <u>1100</u> total hrs <u>0.50</u>	<u>1</u> (second sighting of WIFL detected in 2a)	<u>0</u>	<u>0</u>	<u>N</u>	<u>Y</u>	<u>Y</u>	We went to the southernmost WIFL (01) detected on the same day (survey 2) to search for a nest and reconfirm the sighting.
Nest Search <u>SLL</u> <u>JTD</u>	Date <u>06/07/01</u> Start <u>0540</u> Stop <u>0810</u> total hrs <u>3.50</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>N</u>	<u>Y</u>	<u>Y</u>	We revisited sightings from survey 2 (06/01/01) to observe any possible nesting behavior. No WIFL's were present at the two locations.

Name of Reporting Individual Hira A. Walker

Date Report Completed 08/31/01

Submit the original of this form. Retain a copy for your records.

Fill in the following information completely. Submit original form. Retain copy for your records.

Name of Reporting Individual _____ Phone # _____

Affiliation _____ Email _____

Site Name _____

Did you verify that this site name is consistent with that used in previous years? Yes No (circle one)

Management Authority for Survey Area (circle one): Federal Municipal/County State Tribal Private

Name of Management Entity or Owner (e.g., Tonto National Forest) _____

Length of area surveyed: _____ (specify units, e.g., miles = mi, kilometers = km, meters = m)

Did you survey the same general area during each visit to this site this year? Yes / No - If no, summarize in comments below.

If site was surveyed last year, did you survey the same general area this year? Yes / No If no, summarize in comments below.

Vegetation Characteristics: Overall, are the species in tree/shrub layer at this site comprised predominantly of (check one):

- | | |
|---|---|
| <input type="checkbox"/> Native broadleaf plants
(entirely or almost entirely, includes high-elevation willow) | <input type="checkbox"/> Mixed native and exotic plants (mostly native) |
| <input type="checkbox"/> Mixed native and exotic plants (mostly exotic) | <input type="checkbox"/> Exotic/introduced plants (entirely or almost entirely) |

Identify the 2-3 predominant tree/shrub species: _____

Average height of canopy: _____ (specify units)

Was surface water or saturated soil present at or adjacent to site? Yes No (circle one)

Distance from the site to surface water or saturated soil: _____ (specify units)

Did hydrological conditions change significantly among visits (did the site flood or dry out)? Yes No (circle one)

If yes, describe in comments section below.

Remember to attach a xerox copy of a USGS quad/topographical map (REQUIRED) of the survey area, noting the survey site and location of WIFL detections. You may also include a sketch or aerial photograph showing details of site location, patch shape, survey route in relation to patch, and location of any willow flycatchers or willow flycatcher nests detected. Such sketches or photographs are welcomed, but DO NOT substitute for the required USGS quad map.

Comments (attach additional sheets if necessary): _____

Willow Flycatcher Survey and Detection Form (rev. 4/98)

Site Name SOUTH #4Was site surveyed in previous year? Yes No

If yes, what site name was used?

County BERNALILLOState NM

USGS Quad Name _____

Is copy of USGS map marked with survey area and WIFL sightings attached (as required)? Yes No

Site Coordinates: Start: N _____ E _____ UTM

Stop: N _____ E _____ UTM

Zone _____

Elevation _____ feet / meters (circle one)

** Fill in additional site information on back of this page **

Survey # Observer(s)	Date (m/d/y) Survey time	Number of WIFLs Found	Estimated Number of Pairs	Estimated Number of Territories	Nest(s) Found? Y or N	Cowbirds Detected? Y or N	Presence of Livestock, Recent sign Y or N	Comments about this survey (e.g., evidence of pairs or breeding, number of nests, nest contents or number of fledges seen; potential threats)
1 <u>DLH</u>	Date <u>6/29/00</u> start <u>5:30</u> stop <u>7:00</u> total hrs <u>1.5</u>	Ø	Ø	Ø	N	Y	N	1 possible WIFL along ditch just outside plot. Vigorous "whit" to tape. No Fitz-bew. NOHO fitz bew to tape!
2 <u>MJM</u>	Date <u>6/14/00</u> Start <u>0700</u> Stop <u>0930</u> total hrs <u>2 1/2</u>	○	○	○	N	Y	N	
3 <u>DLH</u>	Date <u>7/7</u> Start <u>615</u> Stop <u>830</u> total hrs _____	○	○	○	N	Y	N	
_____	Date _____ start _____ stop _____ total hrs _____	_____	_____	_____	_____	_____	_____	_____
_____	Date _____ start _____ stop _____ total hrs _____	_____	_____	_____	_____	_____	_____	_____
Overall Site Summary (Total only resident WIFLs)	Adults	Pairs	Territories	Nests	Were any WIFLs color-banded? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>			
					If yes, report color combination(s) in the comments section on back of form			
Total survey hrs _____								

Name of Reporting Individual _____ Date Report Completed _____

Submit the original of this form. Retain a copy for your records.

Fill in the following information completely. Submit original form. Retain copy for your records.

Name of Reporting Individual _____ Phone # _____

Affiliation _____ Email _____

Site Name _____

Did you verify that this site name is consistent with that used in previous years? Yes No (circle one)

Management Authority for Survey Area (circle one): Federal Municipal/County State Tribal Private

Name of Management Entity or Owner (e.g., Tonto National Forest) _____

Length of area surveyed: _____ (specify units, e.g., miles = mi, kilometers = km, meters = m)

Did you survey the same general area during each visit to this site this year? Yes / No If no, summarize in comments below.

If site was surveyed last year, did you survey the same general area this year? Yes / No If no, summarize in comments below.

Vegetation Characteristics: Overall, are the species in tree/shrub layer at this site comprised predominantly of (check one):

- | | |
|---|---|
| <input type="checkbox"/> Native broadleaf plants
(entirely or almost entirely, includes high-elevation willow) | <input type="checkbox"/> Mixed native and exotic plants (mostly native) |
| <input type="checkbox"/> Mixed native and exotic plants (mostly exotic) | <input type="checkbox"/> Exotic/introduced plants (entirely or almost entirely) |

Identify the 2-3 predominant tree/shrub species: _____

Average height of canopy: _____ (specify units)

Was surface water or saturated soil present at or adjacent to site? Yes No (circle one)

Distance from the site to surface water or saturated soil: _____ (specify units)

Did hydrological conditions change significantly among visits (did the site flood or dry out)? Yes No (circle one)
If yes, describe in comments section below.

Remember to attach a xerox copy of a USGS quad/topographical map (REQUIRED) of the survey area, noting the survey site and location of WIFL detections. You may also include a sketch or aerial photograph showing details of site location, patch shape, survey route in relation to patch, and location of any willow flycatchers or willow flycatcher nests detected. Such sketches or photographs are welcomed, but DO NOT substitute for the required USGS quad map.

Comments (attach additional sheets if necessary):

Willow Flycatcher Survey and Detection Form (rev. 4/98)

Site Name South #3

Was site surveyed in previous year? Yes No

If yes, what site name was used? _____

County _____

State _____

USGS Quad Name _____

Is copy of USGS map marked with survey area and WIFL sightings attached (as required)? Yes No

Site Coordinates: Start: N _____ E _____ UTM

Stop: N _____ E _____ UTM

Zone _____

Elevation _____ feet / meters (circle one)

**** Fill in additional site information on back of this page ****

Survey # Observer(s)	Date (m/d/y) Survey time	Number of WIFLs Found	Estimated Number of Pairs	Estimated Number of Territories	Nest(s) Found? Y or N	Cowbirds Detected? Y or N	Presence of Livestock, Recent sign Y or N	Comments about this survey (e.g., evidence of pairs or breeding, number of nests, nest contents or number of fledges seen; potential threats)
1 <u>DLH</u>	Date <u>5/29/00</u> start <u>715</u> stop <u>945</u> total hrs <u>2.5</u>	Ø	Ø	Ø	N	Y	N	
2 <u>ECR</u>	Date <u>6/14/00</u> Start <u>700</u> Stop <u>915</u> total hrs <u>2.25</u>	Ø	Ø	Ø	N	Y	N	
3 <u>DLH</u>	Date <u>7/6/00</u> Start <u>600</u> Stop <u>830</u> total hrs _____	Ø	Ø	Ø	N	Y	N	
_____	Date start stop total hrs							
_____	Date start stop total hrs							
Overall Site Summary (Total only resident WIFLs)	Adults	Pairs	Territories	Nests	Were any WIFLs color-banded? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>			
					If yes, report color combination(s) in the comments section on back of form			
Total survey hrs _____								

Name of Reporting Individual _____

Date Report Completed _____

Submit the original of this form. Retain a copy for your records.

Fill in the following information completely. Submit original form. Retain copy for your records.

Name of Reporting Individual _____ Phone # _____

Affiliation _____ Email _____

Site Name _____

Did you verify that this site name is consistent with that used in previous years? Yes No (circle one)

Management Authority for Survey Area (circle one): Federal Municipal/County State Tribal Private

Name of Management Entity or Owner (e.g., Tonto National Forest) _____

Length of area surveyed: _____ (specify units, e.g., miles = mi, kilometers = km, meters = m)

Did you survey the same general area during each visit to this site this year? Yes / No If no, summarize in comments below.

If site was surveyed last year, did you survey the same general area this year? Yes / No If no, summarize in comments below.

Vegetation Characteristics: Overall, are the species in tree/shrub layer at this site comprised predominantly of (check one):

- | | |
|---|---|
| <input type="checkbox"/> Native broadleaf plants
(entirely or almost entirely, includes high-elevation willow) | <input type="checkbox"/> Mixed native and exotic plants (mostly native) |
| <input type="checkbox"/> Mixed native and exotic plants (mostly exotic) | <input type="checkbox"/> Exotic/introduced plants (entirely or almost entirely) |

Identify the 2-3 predominant tree/shrub species: _____

Average height of canopy: _____ (specify units)

Was surface water or saturated soil present at or adjacent to site? Yes No (circle one)

Distance from the site to surface water or saturated soil: _____ (specify units)

Did hydrological conditions change significantly among visits (did the site flood or dry out)? Yes No (circle one)
If yes, describe in comments section below.

Remember to attach a xerox copy of a USGS quad/topographical map (REQUIRED) of the survey area, noting the survey site and location of WIFL detections. You may also include a sketch or aerial photograph showing details of site location, patch shape, survey route in relation to patch, and location of any willow flycatchers or willow flycatcher nests detected. Such sketches or photographs are welcomed, but DO NOT substitute for the required USGS quad map.

Comments (attach additional sheets if necessary): _____

Willow Flycatcher Survey and Detection Form (rev. 4/98)

Site Name South #2 Was site surveyed in previous year? Yes No
 If yes, what site name was used? _____

County _____ State _____ USGS Quad Name _____

Is copy of USGS map marked with survey area and WIFL sightings attached (as required)? Yes No
 Site Coordinates: Start: N _____ E _____ UTM
 Stop: N _____ E _____ UTM Zone _____
 Elevation _____ feet / meters (circle one)

**** Fill in additional site information on back of this page ****

Survey # Observer(s)	Date (m/d/y) Survey time	Number of WIFLs Found	Estimated Number of Pairs	Estimated Number of Territories	Nest(s) Found? Y or N	Cowbirds Detected? Y or N	Presence of Livestock, Recent sign Y or N	Comments about this survey (e.g., evidence of pairs or breeding, number of nests, nest contents or number of fledges seen; potential threats)
1 <u>DLH</u>	Date <u>5/30/00</u> start <u>530</u> stop <u>830</u> total hrs <u>3</u>	0	0	0	N	Y	Y	
2 <u>JFK, MOM</u>	Date <u>6/14/00</u> Start <u>0645</u> Stop <u>0900</u> total hrs <u>2.5</u>	0	0	0	N	Y	Y	
3 <u>JFK</u>	Date <u>7/6/00</u> Start <u>630</u> Stop <u>900</u> total hrs <u>2.5</u>	0	0	0	N	X	Y	Cows
	Date start stop total hrs _____							
	Date start stop total hrs _____							
Overall Site Summary (Total only resident WIFLs)	Adults	Pairs	Territories	Nests	Were any WIFLs color-banded? Yes No			
Total survey hrs _____					If yes, report color combination(s) in the comments section on back of form			

Name of Reporting Individual _____ Date Report Completed _____

Submit the original of this form. Retain a copy for your records.

Fill in the following information completely. Submit original form. Retain copy for your records.

Name of Reporting Individual _____ Phone # _____

Affiliation _____ Email _____

Site Name _____

Did you verify that this site name is consistent with that used in previous years? Yes No (circle one)

Management Authority for Survey Area (circle one): Federal Municipal/County State Tribal Private

Name of Management Entity or Owner (e.g., Tonto National Forest) _____

Length of area surveyed: _____ (specify units, e.g., miles = mi, kilometers = km, meters = m)

Did you survey the same general area during each visit to this site this year? Yes / No If no, summarize in comments below.

If site was surveyed last year, did you survey the same general area this year? Yes / No If no, summarize in comments below.

Vegetation Characteristics: Overall, are the species in tree/shrub layer at this site comprised predominantly of (check one):

- | | |
|---|---|
| <input type="checkbox"/> Native broadleaf plants
(entirely or almost entirely, includes high-elevation willow) | <input type="checkbox"/> Mixed native and exotic plants (mostly native) |
| <input type="checkbox"/> Mixed native and exotic plants (mostly exotic) | <input type="checkbox"/> Exotic/introduced plants (entirely or almost entirely) |

Identify the 2-3 predominant tree/shrub species: _____

Average height of canopy: _____ (specify units)

Was surface water or saturated soil present at or adjacent to site? Yes No (circle one)

Distance from the site to surface water or saturated soil: _____ (specify units)

Did hydrological conditions change significantly among visits (did the site flood or dry out)? Yes No (circle one)
If yes, describe in comments section below.

Remember to attach a xerox copy of a USGS quad/topographical map (REQUIRED) of the survey area, noting the survey site and location of WIFL detections. You may also include a sketch or aerial photograph showing details of site location, patch shape, survey route in relation to patch, and location of any willow flycatchers or willow flycatcher nests detected. Such sketches or photographs are welcomed, but DO NOT substitute for the required USGS quad map.

Comments (attach additional sheets if necessary):

Willow Flycatcher Survey and Detection Form (rev. 4/98)

Site Name South #1Was site surveyed in previous year? Yes No

If yes, what site name was used? _____

County _____

State _____

USGS Quad Name _____

Is copy of USGS map marked with survey area and WIFL sightings attached (as required)? Yes NoSite Coordinates: Start: N _____ E _____ UTM
Stop: N _____ E _____ UTM Zone _____

Elevation _____ feet / meters (circle one)

** Fill in additional site information on back of this page **

Survey # Observer(s)	Date (m/d/y) Survey time	Number of WIFLs Found	Estimated Number of Pairs	Estimated Number of Territories	Nest(s) Found? Y or N	Cowbirds Detected? Y or N	Presence of Livestock, Recent sign Y or N	Comments about this survey (e.g., evidence of pairs or breeding, number of nests, nest contents or number of fledges seen; potential threats)
1 <u>DLH</u>	Date <u>5/3/00</u> start <u>530</u> stop <u>830</u> total hrs <u>3</u>	Ø	Ø	Ø	N	Y	Y	WIFL on North end of Plot. Did not respond to tape Playback.
2 <u>DLH</u>	Date <u>6/17/00</u> Start <u>620</u> Stop <u>820</u> total hrs <u>2</u>	Ø	Ø	Ø	N	Y	Y	
3 <u>DLH</u>	Date <u>7/5/00</u> Start <u>600</u> Stop <u>015</u> total hrs _____	Ø	Ø	Ø	N	Y	Y	
_____	Date _____ start _____ stop _____ total hrs _____							
_____	Date _____ start _____ stop _____ total hrs _____							
Overall Site Summary (Total only resident WIFLs)	Adults	Pairs	Territories	Nests	Were any WIFLs color-banded? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> If yes, report color combination(s) in the comments section on back of form			
Total survey hrs _____								

Name of Reporting Individual _____ Date Report Completed _____

Submit the original of this form. Retain a copy for your records.

Fill in the following information completely. Submit original form. Retain copy for your records.

Name of Reporting Individual _____ Phone # _____

Affiliation _____ Email _____

Site Name _____

Did you verify that this site name is consistent with that used in previous years? Yes No (circle one)

Management Authority for Survey Area (circle one): Federal Municipal/County State Tribal Private

Name of Management Entity or Owner (e.g., Tonto National Forest) _____

Length of area surveyed: _____ (specify units, e.g., miles = mi, kilometers = km, meters = m)

Did you survey the same general area during each visit to this site this year? Yes / No If no, summarize in comments below.

If site was surveyed last year, did you survey the same general area this year? Yes / No If no, summarize in comments below.

Vegetation Characteristics: Overall, are the species in tree/shrub layer at this site comprised predominantly of (check one):

- Native broadleaf plants Mixed native and exotic plants (mostly native)
(entirely or almost entirely, includes high-elevation willow)
- Mixed native and exotic plants (mostly exotic) Exotic/introduced plants (entirely or almost entirely)

Identify the 2-3 predominant tree/shrub species: _____

Average height of canopy: _____ (specify units)

Was surface water or saturated soil present at or adjacent to site? Yes No (circle one)

Distance from the site to surface water or saturated soil: _____ (specify units)

Did hydrological conditions change significantly among visits (did the site flood or dry out)? Yes No (circle one)

If yes, describe in comments section below.

Remember to attach a xerox copy of a USGS quad/topographical map (REQUIRED) of the survey area, noting the survey site and location of WIFL detections. You may also include a sketch or aerial photograph showing details of site location, patch shape; survey route in relation to patch, and location of any willow flycatchers or willow flycatcher nests detected. Such sketches or photographs are welcomed, but DO NOT substitute for the required USGS quad map.

Comments (attach additional sheets if necessary):

Willow Flycatcher Survey and Detection Form (rev. 4/98)

Site Name Middle 4 Was site surveyed in previous year? Yes No
If yes, what site name was used? _____

County _____ State _____ USGS Quad Name _____

Is copy of USGS map marked with survey area and WIFL sightings attached (as required)? Yes No
Site Coordinates: Start: N _____ E _____ UTM
Stop: N _____ E _____ UTM Zone _____
Elevation _____ feet / meters (circle one)

**** Fill in additional site information on back of this page ****

Survey # Observer(s)	Date (m/d/y) Survey time	Number of WIFLs Found	Estimated Number of Pairs	Estimated Number of Territories	Nest(s) Found? Y or N	Cowbirds Detected? Y or N	Presence of Livestock, Recent sign. Y or N	Comments about this survey (e.g., evidence of pairs or breeding, number of nests, nest contents or number of fledges seen; potential threats)
<u>1</u> <u>MOM</u>	Date <u>5/3/00</u> start <u>0640</u> stop <u>0810</u> total hrs <u>1.5</u>	<u>Ø</u>	<u>Ø</u>	<u>Ø</u>	<u>N</u>	<u>Y</u>	<u>Y</u>	
<u>2</u> <u>ECR</u>	Date <u>6/4/00</u> Start <u>630</u> Stop <u>845</u> total hrs _____	<u>Ø</u>	<u>Ø</u>	<u>Ø</u>	<u>N</u>	<u>Y</u>	<u>Y</u>	
<u>3</u> <u>HMU</u>	Date <u>7/7/00</u> Start <u>615</u> Stop <u>830</u> total hrs _____	<u>Ø</u>	<u>Ø</u>	<u>Ø</u>	<u>N</u>	<u>Y</u>	<u>Y</u>	
_____	Date start stop total hrs _____	_____	_____	_____	_____	_____	_____	
_____	Date start stop total hrs _____	_____	_____	_____	_____	_____	_____	
Overall Site Summary (Total only resident WIFLs)	Adults	Pairs	Territories	Nests	Were any WIFLs color-banded? Yes <input type="checkbox"/> No			
	_____	_____	_____	_____	If yes, report color combination(s) in the comments section on back of form			
Total survey hrs _____	_____	_____	_____	_____				

Name of Reporting Individual _____ Date Report Completed _____

Submit the original of this form. Retain a copy for your records.

Fill in the following information completely. Submit original form. Retain copy for your records.

Name of Reporting Individual _____ Phone # _____

Affiliation _____ Email _____

Site Name _____

Did you verify that this site name is consistent with that used in previous years? Yes No (circle one)

Management Authority for Survey Area (circle one): Federal Municipal/County State Tribal Private

Name of Management Entity or Owner (e.g., Tonto National Forest) _____

Length of area surveyed: _____ (specify units, e.g., miles = mi, kilometers = km, meters = m)

Did you survey the same general area during each visit to this site this year? Yes / No If no, summarize in comments below.

If site was surveyed last year, did you survey the same general area this year? Yes / No If no, summarize in comments below.

Vegetation Characteristics: Overall, are the species in tree/shrub layer at this site comprised predominantly of (check one):

- | | |
|---|---|
| <input type="checkbox"/> Native broadleaf plants
(entirely or almost entirely, includes high-elevation willow) | <input type="checkbox"/> Mixed native and exotic plants (mostly native) |
| <input type="checkbox"/> Mixed native and exotic plants (mostly exotic) | <input type="checkbox"/> Exotic/introduced plants (entirely or almost entirely) |

Identify the 2-3 predominant tree/shrub species: _____

Average height of canopy: _____ (specify units)

Was surface water or saturated soil present at or adjacent to site? Yes No (circle one)

Distance from the site to surface water or saturated soil: _____ (specify units)

Did hydrological conditions change significantly among visits (did the site flood or dry out)? Yes No (circle one)
If yes, describe in comments section below.

Remember to attach a xerox copy of a USGS quad/topographical map (REQUIRED) of the survey area, noting the survey site and location of WIFL detections. You may also include a sketch or aerial photograph showing details of site location, patch shape, survey route in relation to patch, and location of any willow flycatchers or willow flycatcher nests detected. Such sketches or photographs are welcomed, but DO NOT substitute for the required USGS quad map.

Comments (attach additional sheets if necessary):

Willow Flycatcher Survey and Detection Form (rev. 4/98)

Site Name Middle 3 Was site surveyed in previous year? Yes No
 If yes, what site name was used? _____

County _____ State _____ USGS Quad Name _____

Is copy of USGS map marked with survey area and WIFL sightings attached (as required)? Yes No
 Site Coordinates: Start: N _____ E _____ UTM
 Stop: N _____ E _____ UTM Zone _____
 Elevation _____ feet / meters (circle one)

**** Fill in additional site information on back of this page ****

Survey # Observer(s)	Date (m/d/y) Survey time	Number of WIFLs Found	Estimated Number of Pairs	Estimated Number of Territories	Nest(s) Found? Y or N	Cowbirds Detected? Y or N	Presence of Livestock, Recent sign Y or N	Comments about this survey (e.g., evidence of pairs or breeding, number of nests, nest contents or number of fledges seen; potential threats)
<u>1</u> <u>HAW</u>	Date <u>5/31/00</u> start <u>640</u> stop <u>830</u> total hrs <u>2</u>	<u>Ø</u>	<u>Ø</u>	<u>Ø</u>	<u>N</u>	<u>Y</u>	<u>Y</u>	
<u>2</u> <u>LCB JFK</u>	Date <u>6/16/00</u> Start <u>630</u> Stop <u>900</u> total hrs <u>2.5</u>	<u>Ø</u>	<u>Ø</u>	<u>Ø</u>	<u>N</u>	<u>Y</u>	<u>Y</u>	
<u>3</u> <u>JFK</u>	Date <u>7/1/00</u> Start <u>600</u> Stop <u>800</u> total hrs _____	<u>Ø</u>	<u>Ø</u>	<u>Ø</u>	<u>N</u>	<u>Y</u>	<u>Y</u>	
_____	Date _____ start _____ stop _____ total hrs _____	_____	_____	_____	_____	_____	_____	_____
_____	Date _____ start _____ stop _____ total hrs _____	_____	_____	_____	_____	_____	_____	_____
Overall Site Summary (Total only resident WIFLs)	Adults	Pairs	Territories	Nests	Were any WIFLs color-banded? Yes <input type="checkbox"/> No			
	_____	_____	_____	_____	If yes, report color combination(s) in the comments section on back of form			
Total survey hrs _____								

Name of Reporting Individual _____ Date Report Completed _____

Submit the original of this form. Retain a copy for your records.

Fill in the following information completely. Submit original form. Retain copy for your records.

Name of Reporting Individual _____ Phone # _____

Affiliation _____ Email _____

Site Name _____

Did you verify that this site name is consistent with that used in previous years? Yes No (circle one)

Management Authority for Survey Area (circle one): Federal Municipal/County State Tribal Private

Name of Management Entity or Owner (e.g., Tonto National Forest) _____

Length of area surveyed: _____ (specify units, e.g., miles = mi, kilometers = km, meters = m)

Did you survey the same general area during each visit to this site this year? Yes / No If no, summarize in comments below.

If site was surveyed last year, did you survey the same general area this year? Yes / No If no, summarize in comments below.

Vegetation Characteristics: Overall, are the species in tree/shrub layer at this site comprised predominantly of (check one):

- Native broadleaf plants Mixed native and exotic plants (mostly native)
(entirely or almost entirely, includes high-elevation willow)
 Mixed native and exotic plants (mostly exotic) Exotic/introduced plants (entirely or almost entirely)

Identify the 2-3 predominant tree/shrub species: _____

Average height of canopy: _____ (specify units)

Was surface water or saturated soil present at or adjacent to site? Yes No (circle one)

Distance from the site to surface water or saturated soil: _____ (specify units)

Did hydrological conditions change significantly among visits (did the site flood or dry out)? Yes No (circle one)
If yes, describe in comments section below.

Remember to attach a xerox copy of a USGS quad/topographical map (REQUIRED) of the survey area, noting the survey site and location of WIFL detections. You may also include a sketch or aerial photograph showing details of site location, patch shape, survey route in relation to patch, and location of any willow flycatchers or willow flycatcher nests detected. Such sketches or photographs are welcomed, but DO NOT substitute for the required USGS quad map.

Comments (attach additional sheets if necessary):

WILLOW FLYCATCHER
SURVEY FORM

Willow Flycatcher Survey and Detection Form (rev. 4/98)

Site Name Middle 2

Was site surveyed in previous year? Yes No

If yes, what site name was used? _____

County _____

State _____

USGS Quad Name _____

Is copy of USGS map marked with survey area and WIFL sightings attached (as required)? Yes No

Site Coordinates: Start: N _____ E _____ UTM _____

Stop: N _____ E _____ UTM _____

Zone _____

Elevation _____ feet / meters (circle one)

**** Fill in additional site information on back of this page ****

Survey # Observer(s)	Date (m/d/y) Survey time	Number of WIFLs Found	Estimated Number of Pairs	Estimated Number of Territories	Nest(s) Found? Y or N	Cowbirds Detected? Y or N	Presence of Livestock, Recent sign Y or N	Comments about this survey (e.g., evidence of pairs or breeding, number of nests, nest contents or number of fledges seen; potential threats)
1 <u>ECR</u>	Date 5/29/00 start 0640 stop 0920 total hrs 2.67	∅	∅	∅	N	Y	N	
2 <u>Mrm</u>	Date 6/14/00 Start 700 Stop 1000 total hrs 3	0	0	0	N	X	N	SUITABLE HABITAT ALONG RIVER
3 <u>JFK</u>	Date 7/5/00 Start 600 Stop 800 total hrs _____	∅	∅	∅	N	Y	N	
_____	Date start stop total hrs _____							
_____	Date start stop total hrs _____							
Overall Site Summary (Total only resident WIFLs)	Adults	Pairs	Territories	Nests	Were any WIFLs color-banded? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>			
					If yes, report color combination(s) in the comments section on back of form			
Total survey hrs _____								

Name of Reporting Individual _____

Date Report Completed _____

Submit the original of this form. Retain a copy for your records.

Fill in the following information completely. Submit original form. Retain copy for your records.

Name of Reporting Individual _____ Phone # _____

Affiliation _____ Email _____

Site Name _____

Did you verify that this site name is consistent with that used in previous years? Yes No (circle one)

Management Authority for Survey Area (circle one): Federal Municipal/County State Tribal Private

Name of Management Entity or Owner (e.g., Tonto National Forest) _____

Length of area surveyed: _____ (specify units, e.g., miles = mi, kilometers = km, meters = m)

Did you survey the same general area during each visit to this site this year? Yes / No If no, summarize in comments below.

If site was surveyed last year, did you survey the same general area this year? Yes / No If no, summarize in comments below.

Vegetation Characteristics: Overall, are the species in tree/shrub layer at this site comprised predominantly of (check one):

- | | |
|---|---|
| <input type="checkbox"/> Native broadleaf plants
(entirely or almost entirely, includes high-elevation willow) | <input type="checkbox"/> Mixed native and exotic plants (mostly native) |
| <input type="checkbox"/> Mixed native and exotic plants (mostly exotic) | <input type="checkbox"/> Exotic/introduced plants (entirely or almost entirely) |

Identify the 2-3 predominant tree/shrub species: _____

Average height of canopy: _____ (specify units)

Was surface water or saturated soil present at or adjacent to site? Yes No (circle one)

Distance from the site to surface water or saturated soil: _____ (specify units)

Did hydrological conditions change significantly among visits (did the site flood or dry out)? Yes No (circle one)
If yes, describe in comments section below.

Remember to attach a xerox copy of a USGS quad/topographical map (REQUIRED) of the survey area, noting the survey site and location of WIFL detections. You may also include a sketch or aerial photograph showing details of site location, patch shape, survey route in relation to patch, and location of any willow flycatchers or willow flycatcher nests detected. Such sketches or photographs are welcomed, but DO NOT substitute for the required USGS quad map.

Comments (attach additional sheets if necessary):

Willow Flycatcher Survey and Detection Form (rev. 4/98)

Site Name Middle 1
 If yes, what site name was used? _____

Was site surveyed in previous year? Yes No

County _____ State _____ USGS Quad Name _____

Is copy of USGS map marked with survey area and WIFL sightings attached (as required)? Yes No
 Site Coordinates: Start: N _____ E _____ UTM
 Stop: N _____ E _____ UTM Zone _____
 Elevation _____ feet / meters (circle one)

** Fill in additional site information on back of this page **

Survey # Observer(s)	Date (m/d/y) Survey time	Number of WIFLs Found	Estimated Number of Pairs	Estimated Number of Territories	Nest(s) Found? Y or N	Cowbirds Detected? Y or N	Presence of Livestock, Recent sign Y or N	Comments about this survey (e.g., evidence of pairs or breeding, number of nests, nest contents or number of fledges seen; potential threats)
1 / <u>HMW</u>	Date 5/30/00 start 630 stop 830 total hrs 2	Ø	Ø	Ø	N	Y	N	
2 2 <u>ECR</u>	Date 6-16-00 Start 0634 Stop total hrs _____	Ø	Ø	Ø	N	Y	N	Near river is suitable habitat
3 3 <u>ECR</u>	Date 7-7-00 Start 0650 Stop 0829 total hrs _____	Ø	Ø	Ø	N	Y	N	wavy line
_____	Date start stop total hrs _____							
_____	Date start stop total hrs _____							
Overall Site Summary (Total only resident WIFLs)	Adults	Pairs	Territories	Nests	Were any WIFLs color-banded? Yes No			
					If yes, report color combination(s) in the comments section on back of form			
Total survey hrs _____								

Name of Reporting Individual _____ Date Report Completed _____

Submit the original of this form. Retain a copy for your records.

Fill in the following information completely. Submit original form. Retain copy for your records.

Name of Reporting Individual _____ Phone # _____

Affiliation _____ Email _____

Site Name _____

Did you verify that this site name is consistent with that used in previous years? Yes No (circle one)

Management Authority for Survey Area (circle one): Federal Municipal/County State Tribal Private

Name of Management Entity or Owner (e.g., Tonto National Forest) _____

Length of area surveyed: _____ (specify units, e.g., miles = mi, kilometers = km, meters = m)

Did you survey the same general area during each visit to this site this year? Yes / No If no, summarize in comments below.

If site was surveyed last year, did you survey the same general area this year? Yes / No If no, summarize in comments below.

Vegetation Characteristics: Overall, are the species in tree/shrub layer at this site comprised predominantly of (check one):

- | | |
|---|---|
| <input type="checkbox"/> Native broadleaf plants
(entirely or almost entirely, includes high-elevation willow) | <input type="checkbox"/> Mixed native and exotic plants (mostly native) |
| <input type="checkbox"/> Mixed native and exotic plants (mostly exotic) | <input type="checkbox"/> Exotic/introduced plants (entirely or almost entirely) |

Identify the 2-3 predominant tree/shrub species: _____

Average height of canopy: _____ (specify units)

Was surface water or saturated soil present at or adjacent to site? Yes No (circle one)

Distance from the site to surface water or saturated soil: _____ (specify units)

Did hydrological conditions change significantly among visits (did the site flood or dry out)? Yes No (circle one)
If yes, describe in comments section below.

Remember to attach a xerox copy of a USGS quad/topographical map (REQUIRED) of the survey area, noting the survey site and location of WIFL detections. You may also include a sketch or aerial photograph showing details of site location, patch shape, survey route in relation to patch, and location of any willow flycatchers or willow flycatcher nests detected. Such sketches or photographs are welcomed, but DO NOT substitute for the required USGS quad map.

Comments (attach additional sheets if necessary):

Willow Flycatcher Survey and Detection Form (rev. 4/98)

Site Name North #4

Was site surveyed in previous year? Yes No

If yes, what site name was used?

County Bern, WIloState WI

USGS Quad Name _____

Is copy of USGS map marked with survey area and WIFL sightings attached (as required)? Yes NoSite Coordinates: Start: N _____ E _____ UTM
Stop: N _____ E _____ UTM Zone _____

Elevation _____ feet / meters (circle one)

** Fill in additional site information on back of this page **

Survey # Observer(s)	Date (m/d/y) Survey time	Number of WIFLs Found	Estimated Number of Pairs	Estimated Number of Territories	Nest(s) Found? Y or N	Cowbirds Detected? Y or N	Presence of Livestock, Recent sign Y or N	Comments about this survey (e.g., evidence of pairs or breeding, number of nests, nest contents or number of fledges seen; potential threats)
1 / <u>MOM</u>	Date <u>5/29/00</u> start <u>610</u> stop <u>725</u> total hrs <u>1.25</u>	Ø	Ø	Ø	N	N	N	WEWP
2 2 <u>ECR</u>	Date <u>6-20-00</u> Start <u>0607</u> Stop <u>0856</u> total hrs <u>3</u>	Ø	Ø	Ø	N	Y	N	
3 -3 <u>ECR</u>	Date <u>7/5</u> Start <u>530</u> Stop <u>715</u> total hrs <u>1.75</u>	Ø	Ø	Ø	N	Y	N	
_____	Date start stop total hrs _____							
_____	Date start stop total hrs _____							
Overall Site Summary (Total only resident WIFLs)	Adults	Pairs	Territories	Nests	Were any WIFLs color-banded? Yes No			
					If yes, report color combination(s) in the comments section on back of form			
Total survey hrs _____								

Name of Reporting Individual _____ Date Report Completed _____

Submit the original of this form. Retain a copy for your records.

Fill in the following information completely. Submit original form. Retain copy for your records.

Name of Reporting Individual _____ Phone # _____

Affiliation _____ Email _____

Site Name _____

Did you verify that this site name is consistent with that used in previous years? Yes No (circle one)

Management Authority for Survey Area (circle one): Federal Municipal/County State Tribal Private

Name of Management Entity or Owner (e.g., Tonto National Forest) _____

Length of area surveyed: _____ (specify units, e.g., miles = mi, kilometers = km, meters = m)

Did you survey the same general area during each visit to this site this year? Yes / No If no, summarize in comments below.

If site was surveyed last year, did you survey the same general area this year? Yes / No If no, summarize in comments below.

Vegetation Characteristics: Overall, are the species in tree/shrub layer at this site comprised predominantly of (check one):

- Native broadleaf plants Mixed native and exotic plants (mostly native)
(entirely or almost entirely, includes high-elevation willow)
 Mixed native and exotic plants (mostly exotic) Exotic/introduced plants (entirely or almost entirely)

Identify the 2-3 predominant tree/shrub species: _____

Average height of canopy: _____ (specify units)

Was surface water or saturated soil present at or adjacent to site? Yes No (circle one)

Distance from the site to surface water or saturated soil: _____ (specify units)

Did hydrological conditions change significantly among visits (did the site flood or dry out)? Yes No (circle one)
If yes, describe in comments section below.

Remember to attach a xerox copy of a USGS quad/topographical map (REQUIRED) of the survey area, noting the survey site and location of WIFL detections. You may also include a sketch or aerial photograph showing details of site location, patch shape, survey route in relation to patch, and location of any willow flycatchers or willow flycatcher nests detected. Such sketches or photographs are welcomed, but DO NOT substitute for the required USGS quad map.

Comments (attach additional sheets if necessary):

Willow Flycatcher Survey and Detection Form (rev. 4/98)

Site Name

North 3

Was site surveyed in previous year? Yes No

If yes, what site name was used?

NA

County

BERNALILLO

State NM

USGS Quad Name

Is copy of USGS map marked with survey area and WIFL sightings attached (as required)? Yes No

Site Coordinates: Start: N _____ E _____ UTM

Stop: N _____ E _____ UTM

Zone _____

Elevation _____ feet / meters (circle one)

** Fill in additional site information on back of this page **

Survey # Observer(s)	Date (m/d/y) Survey time	Number of WIFLs Found	Estimated Number of Pairs	Estimated Number of Territories	Nest(s) Found? Y or N	Cowbirds Detected? Y or N	Presence of Livestock, Recent sign Y or N	Comments about this survey (e.g., evidence of pairs or breeding, number of nests, nest contents or number of fledges seen; potential threats)
1 / <u>MOM</u>	Date 5/29/00 start 800 stop 920 total hrs 1.33	Ø	Ø	Ø	N N N			WEWP + ATFL
2 / <u>MOM</u>	Date 6-13-00 Start 0600 Stop 0900 total hrs 3	Ø Ø Ø	Ø Ø Ø	Ø Ø Ø	N N N			WEWP ATFL NESTING
3 <u>CCB</u>	Date 7/6/00 Start 805 Stop 1100 total hrs 2.75				N N N			
	Date start stop total hrs							
	Date start stop total hrs							
Overall Site Summary (Total only resident WIFLs)	Adults	Pairs	Territories	Nests	Were any WIFLs color-banded? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>			
					If yes, report color combination(s) in the comments section on back of form			
Total survey hrs								

Name of Reporting Individual _____ Date Report Completed _____

Submit the original of this form. Retain a copy for your records.

Fill in the following information completely. Submit original form. Retain copy for your records.

Name of Reporting Individual _____ Phone # _____

Affiliation _____ Email _____

Site Name _____

Did you verify that this site name is consistent with that used in previous years? Yes No (circle one)

Management Authority for Survey Area (circle one): Federal Municipal/County State Tribal Private

Name of Management Entity or Owner (e.g., Tonto National Forest) _____

Length of area surveyed: _____ (specify units, e.g., miles = mi, kilometers = km, meters = m)

Did you survey the same general area during each visit to this site this year? Yes / No If no, summarize in comments below.

If site was surveyed last year, did you survey the same general area this year? Yes / No If no, summarize in comments below.

Vegetation Characteristics: Overall, are the species in tree/shrub layer at this site comprised predominantly of (check one):

- | | |
|---|---|
| <input type="checkbox"/> Native broadleaf plants
(entirely or almost entirely, includes high-elevation willow) | <input type="checkbox"/> Mixed native and exotic plants (mostly native) |
| <input type="checkbox"/> Mixed native and exotic plants (mostly exotic) | <input type="checkbox"/> Exotic/introduced plants (entirely or almost entirely) |

Identify the 2-3 predominant tree/shrub species: _____

Average height of canopy: _____ (specify units)

Was surface water or saturated soil present at or adjacent to site? Yes No (circle one)

Distance from the site to surface water or saturated soil: _____ (specify units)

Did hydrological conditions change significantly among visits (did the site flood or dry out)? Yes No (circle one)
If yes, describe in comments section below.

Remember to attach a xerox copy of a USGS quad/topographical map (REQUIRED) of the survey area, noting the survey site and location of WIFL detections. You may also include a sketch or aerial photograph showing details of site location, patch shape, survey route in relation to patch, and location of any willow flycatchers or willow flycatcher nests detected. Such sketches or photographs are welcomed, but DO NOT substitute for the required USGS quad map.

Comments (attach additional sheets if necessary):

Willow Flycatcher Survey and Detection Form (rev. 4/98)

Site Name NORTH #2

Was site surveyed in previous year? Yes No

If yes, what site name was used?

County Bernalillo

State NM

USGS Quad Name _____

Is copy of USGS map marked with survey area and WIFL sightings attached (as required)? Yes No

Site Coordinates: Start: N _____ E _____ UTM

Stop: N _____ E _____ UTM

Zone _____

Elevation _____ feet / meters (circle one)

**** Fill in additional site information on back of this page ****

Survey # Observer(s)	Date (m/d/y) Survey time	Number of WIFLs Found	Estimated Number of Pairs	Estimated Number of Territories	Nest(s) Found? Y or N	Cowbirds Detected? Y or N	Presence of Livestock, Recent sign Y or N	Comments about this survey (e.g., evidence of pairs or breeding, number of nests, nest contents or number of fledges seen; potential threats)
1 <u>MOM</u>	Date <u>5/27/00</u> start <u>0620</u> stop <u>0740</u> total hrs <u>1.33</u>	0	0	0	N	N	N	Local: Buntings present in migration
2 <u>MNM</u>	Date <u>6/15/00</u> Start <u>735</u> Stop <u>930</u> total hrs <u>2</u>	0	0	0	11	11	N	
3 <u>CCB</u>	Date <u>7/5/00</u> Start <u>630</u> Stop <u>800</u> total hrs <u>1.5</u>	0	0	0	N	N	N	
_____	Date _____ start _____ stop _____ total hrs _____	0	0	0	0	0	0	
_____	Date _____ start _____ stop _____ total hrs _____	0	0	0	0	0	0	
Overall Site Summary (Total only resident WIFLs)	Adults	Pairs	Territories	Nests	Were any WIFLs color-banded? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>			
					If yes, report color combination(s) in the comments section on back of form			
Total survey hrs _____								

Name of Reporting Individual _____ Date Report Completed _____

Submit the original of this form. Retain a copy for your records.

Fill in the following information completely. Submit original form. Retain copy for your records.

Name of Reporting Individual Michael Means Phone # 505 - 766 - 3778

Affiliation CISPA-FS, RMRS Email mmeans@fs.fed.us

Site Name North 1

Did you verify that this site name is consistent with that used in previous years? Yes No (circle one)

Management Authority for Survey Area (circle one): Federal Municipal/County State Tribal Private

Name of Management Entity or Owner (e.g., Tonto National Forest) Middle Rio Grande Conservancy District

Length of area surveyed: 15 ha (specify units, e.g., miles = mi, kilometers = km, meters = m)

Did you survey the same general area during each visit to this site this year? Yes / No If no, summarize in comments below.

If site was surveyed last year, did you survey the same general area this year? Yes / No If no, summarize in comments below.

Vegetation Characteristics: Overall, are the species in tree/shrub layer at this site comprised predominantly of (check one):

- Native broadleaf plants Mixed native and exotic plants (mostly native)
(entirely or almost entirely, includes high-elevation willow)
 Mixed native and exotic plants (mostly exotic) Exotic/introduced plants (entirely or almost entirely)

Identify the 2-3 predominant tree/shrub species: Cottonwood, Russian Olive, Salt cedar

Average height of canopy: 15 m (specify units)

Was surface water or saturated soil present at or adjacent to site? Yes No (circle one)

Distance from the site to surface water or saturated soil: 0-150m (specify units)

Did hydrological conditions change significantly among visits (did the site flood or dry out)? Yes No (circle one)
If yes, describe in comments section below.

Remember to attach a xerox copy of a USGS quad/topographical map (REQUIRED) of the survey area, noting the survey site and location of WIFL detections. You may also include a sketch or aerial photograph showing details of site location, patch shape, survey route in relation to patch, and location of any willow flycatchers or willow flycatcher nests detected. Such sketches or photographs are welcomed, but DO NOT substitute for the required USGS quad map.

Comments (attach additional sheets if necessary):

Willow Flycatcher Survey and Detection Form (rev. 4/98)

Site Name North #1 Was site surveyed in previous year? Yes No
If yes, what site name was used? _____

County Bernalillo State NM USGS Quad Name _____

Is copy of USGS map marked with survey area and WIFL sightings attached (as required)? Yes No
Site Coordinates: Start: N _____ E _____ UTM
Stop: N _____ E _____ UTM Zone _____
Elevation _____ feet / meters (circle one)

**** Fill in additional site information on back of this page ****

Survey #. Observer(s)	Date (m/d/y) Survey time	Number of WIFLs Found	Estimated Number of Pairs	Estimated Number of Territories	Nest(s) Found? Y or N	Cowbirds Detected? Y or N	Presence of Livestock, Recent sign Y or N	Comments about this survey (e.g., evidence of pairs or breeding, number of nests, nest contents or number of fledges seen; potential threats)
1 <u>JFK</u>	Date <u>5/30/00</u> start <u>820</u> stop <u>910</u> total hrs <u>1</u>	Ø	Ø	Ø	N	Y	N	
2 <u>MJM</u>	Date <u>6/15/00</u> Start <u>615</u> Stop <u>730</u> total hrs <u>1 1/4</u>	0	0	0	N	N	N	
3 <u>ECR</u>	Date <u>7/6/00</u> Start <u>745</u> Stop <u>1000</u> total hrs <u>2.25</u>	0	0	0	N	Y	N	
	Date start stop total hrs _____							
	Date start stop total hrs _____							
Overall Site Summary (Total only resident WIFLs)	Adults	Pairs	Territories	Nests	Were any WIFLs color-banded? Yes <input type="checkbox"/> No			
					If yes, report color combination(s) in the comments section on back of form			
Total survey hrs _____								

Name of Reporting Individual Michael Means Date Report Completed _____

Submit the original of this form. Retain a copy for your records.